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1
       IN THE UNITED STATES DISTRICT COURT
        FOR THE NORTHERN DISTRICT OF OHIO
                 EASTERN DIVISION
3
     IN RE: NATIONAL
                              : HON. DAN A.
     PRESCRIPTION OPIATE
                              : POLSTER
     LITIGATION
5
     APPLIES TO ALL CASES
                              : NO.
                               : 1:17-MD-2804
7
             - HIGHLY CONFIDENTIAL -
8
    SUBJECT TO FURTHER CONFIDENTIALITY REVIEW
9
10
                     VOLUME II
11
12
                 November 14, 2018
13
14
15
                  Videotaped deposition of
    BRUCE L. MOSKOVITZ, M.D., taken pursuant to notice, was held at the law offices of
16
    Drinker Biddle & Reath, 105 College Road
    East, Princeton, New Jersey, beginning at
17
    9:17 a.m., on the above date, before
    Michelle L. Gray, a Registered
18
    Professional Reporter, Certified
    Shorthand Reporter, Certified Realtime
19
    Reporter, and Notary Public.
20
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2
                  THE VIDEOGRAPHER: We are
3
           back on the record. Today's date
           is November 14th, 2018. And the
5
           time is 9:17 a.m.
6
                  Counsel, you may proceed.
7
8
               BRUCE L. MOSKOVITZ, M.D.,
9
    having been previously sworn, was
10
    examined and testified as follows:
11
12
               CONTINUED EXAMINATION
13
14
    BY MS. CONROY:
15
                 Good morning, Doctor.
           Ο.
16
                 Good morning.
           Α.
17
                  Thank you for bringing the
           Ο.
18
    sun back.
19
                  We don't often get it in New
           Α.
20
    Jersey at this time of year.
21
                  Right. I quess we're
22
    avoiding a snowstorm for a few more hours
23
             What I'd like to talk about
    I quess.
24
    first this morning is the reservoir patch
```

- versus the matrix patch. And let's see.
- ² I think maybe one way to address it at
- ³ first is what I've marked as Exhibit 20.
- 4 (Document marked for
- ⁵ identification as Exhibit
- Janssen-Moskovitz-20.)
- ⁷ BY MS. CONROY:
- 8 O. This is an e-mail from
- ⁹ you -- this is an e-mail from you to Drew
- 10 Jones at ALZA. Is that --
- A. ALZA.
- Q. ALZA? And who is Drew
- ¹³ Jones.
- A. I believe he was the
- physician in the R&D area at ALZA. They
- were the original manufacturing of
- ¹⁷ Duragesic.
- Q. And is GV Gary Vorsanger?
- A. I'm sorry. Are you
- seeing --
- 0. On the cc.
- A. I would assume so.
- MR. LIFLAND: Are we reading
- the Bates numbers into the record

1 for the exhibits? 2 MS. CONROY: I'm happy to if 3 you want the Bates number. It's JAN-MS-01196284, and 5 it's Exhibit 20. 6 MR. LIFLAND: Thank you. 7 BY MS. CONROY: 8 And I see that your 9 signature line, it says, "Executive 10 director, primary care." 11 Α. Yes. 12 Is that, we saw yesterday 13 pain/mycology. Did the department name 14 change or --15 I can only answer that by 16 saying over the course of time in medical affairs, there were a variety of marketed 17 18 products that fell under my responsibility. And so certainly by 19 20 2003, there was no longer a focus on the 21 anti-fungals. 22 So while the core 23 responsibilities for marketed products 24 remained the same, the title may have

- ¹ changed periodically.
- Q. Was it considered primary
- 3 care instead of pain, do you know?
- ⁴ A. There was a period of time
- when Janssen itself changed its name to
- ⁶ Pri-Cara, which reflected our focus on
- ⁷ primary care. So the change in title may
- 8 have been related to the change in the
- ⁹ focus even at the company level. And
- then subsequently it became Janssen
- Ortho-McNeil, and after that Janssen.
- Q. Okay. Take a look at
- Dr. Jones' e-mail to you, which is at the
- bottom which was earlier in the day to
- you. Think the folks in Europe will have
- some issues with studies which might
- qenerate data suggesting matrix is a more
- abusable product than form-filled
- ¹⁹ Duragesic."
- Do you see that?
- A. Yes, I do.
- Q. Can you describe for me in
- this e-mail if you know what is meant by
- 24 matrix?

- A. Yes. We were aware at this
- period of time, 2003, that there was
- another company that was developing a
- 4 formulation of the Duragesic patch in
- ⁵ which fentanyl would be delivered, not
- through a reservoir but through what we
- ⁷ term a "matrix," which is a solid fill.
- 8 It's fentanyl in a solid fill
- ⁹ formulation. And -- so we knew that they
- would be coming out with that in the
- ¹¹ United States.
- 12 There was a matrix
- 13 formulation already available marketed by
- ¹⁴ Janssen in Europe.
- Q. Was that a similar
- 16 formulation, the one that Janssen
- marketed in Europe?
- A. Well, if by similar you mean
- 19 pharmacokinetically did it deliver the --
- the same controlled rate of fentanyl,
- 21 yes.
- Q. I thank -- thank you for
- that. What I'm talking about more is,
- was it considered a matrix patch?

- A. Yes, it was.
- Q. Okay. So -- so Janssen had
- ³ a matrix patch in Europe --
- ⁴ A. Yes.
- ⁵ Q. -- that it was selling?
- ⁶ A. Yes.
- ⁷ Q. And in the U.S., what kind
- 8 of a patch was Janssen selling at that
- 9 time?
- A. It was still the form-filled
- patch. It was still a reservoir in which
- the fentanyl is between two layers as a
- semi liquid in an alcohol base in hydroxy
- 14 cellulose I believe.
- Q. Okay. Was Janssen selling a
- matrix patch of any sort in the U.S. at
- this time in 2003?
- ¹⁸ A. No.
- Q. At some point they did
- switch to the -- to the matrix patch?
- ²¹ A. Yes.
- Q. Okay. Approximately what
- year did they switch?
- A. I believe that was in 2007,

```
1
    approval 2008.
2
                 MR. LIFLAND: If you -- you
3
           should -- you do have the -- the
           timeline if you want to --
5
                 THE WITNESS: Yeah, so let
6
           me go back to that. I'm sorry.
7
                 Yeah, it was in --
8
    BY MS. CONROY:
9
                 We're going to -- we're
10
    going to look at some documents, but
11
    you're -- I'm happy to have you look at
12
    this time --
13
           A. Yeah, so it was in 2009 that
14
    we marketed. The -- the data to develop
15
    the pharmacokinetic information was
16
    developed earlier.
17
                 Okay. Now, if you take a
18
    look at your response to Dr. Jones, you
    say, "Bingo. It's why it's so important
19
20
    to touch base with all stakeholders."
21
                 What do you mean by
22
    stakeholders?
23
                 So anything that happens in
24
    any one country is shared with all the
```

- 1 regulatory authorities in all the other
- countries. And so we never want to do
- something in a void where we're not
- 4 informing our subsidiaries and -- and
- other countries where products would be
- 6 marketed of what's going on in our
- 7 country, because there would be concerns
- 8 in -- in another country over what might
- ⁹ be happening in the first -- in the first
- country.
- Q. And that's because you,
- Janssen in the United States, was looking
- 13 at conducting some tests that would not
- have been advantageous to the matrix
- patch that Duragesic Janssen was selling
- in -- in Europe?
- A. I -- I wouldn't characterize
- it that way. We were looking at whether
- there would be differences in issue -- we
- didn't know ahead of time, otherwise we
- wouldn't be conducting the studies, but
- we had concerns based upon an earlier
- report that there may be different issues
- ²⁴ around abuse, misuse, diversion, in the

- ¹ United States between a reservoir patch
- ² and a matrix patch.
- Q. Different issues between the
- ⁴ United States and Europe?
- A. Well, that's one of the
- things that we explored.
- O. And what was -- what was
- 9 your conclusion?
- ⁹ A. Well, so there are a couple
- of components to that. I mean we
- ultimately did do studies that suggested
- to us that in the United States there may
- be differences in attractiveness of -- of
- a matrix patch compared with a reservoir
- patch in potential for abuse, misuse and
- diversion.
- 17 At the same time,
- 18 recognizing that there was a matrix patch
- in Europe, we commissioned an expert
- report on the part of a German expert in
- pain management to assess whether the
- same concerns that we explored in the
- United States were valid for Europe. And
- it was his conclusion that the

- environment around abuse, misuse and
- ² diversion in the United States,
- ³ particularly access to other drugs,
- 4 differed between the United States and
- ⁵ Europe such that the -- the concerns we
- 6 had about bringing a matrix patch to the
- ⁷ market in the United States were
- 8 different for Europe. And the same
- 9 issues would not lead to the levels of
- concern for abuse, misuse and diversion
- in Europe.
- Q. When -- when approximately
- did you -- I take it Janssen consulted
- and hired the German expert?
- A. Yes.
- Q. Approximately when was that?
- 17 A. 2003, 2004. I believe the
- report came out in 2004.
- Q. And was that a report to
- ²⁰ you?
- A. It was a report to -- well,
- I -- I certainly received the report.
- I -- I don't recall exactly who the
- report was directed to.

- Q. Did you -- were you the
- person who requested the report of the
- ³ German expert?
- ⁴ A. No. That was -- I believe
- ⁵ the report -- I can't say for certain, I
- 6 believe the report was requested by the
- ⁷ head of the pain group, the worldwide
- ⁸ pain group on the R&D side.
- 9 Q. Do you remember the expert's
- 10 name?
- 11 A. It was a German name,
- Juergen Haeussler, I believe, was the one
- who requested it. He may have requested
- 14 it from his PGSM counterparts. But I
- believe Juergen Haeussler was the one who
- requested that -- that report.
- Q. He was -- as best you can
- recall, he was head of worldwide pain at
- 19 R and -- R&D?
- 20 A. At the R -- on the R&D side.
- Q. Do you remember the name of
- the actual expert?
- A. No, I don't.
- Q. Or do you know where the

- expert practiced, I mean what hospital --
- A. I believe it was in Germany.
- Q. Was it a man or a woman, do
- 4 you know?
- ⁵ A. It was a gentleman.
- Q. And do you recall today what
- ⁷ environmental -- what environmental
- 8 differences there were between the United
- ⁹ States and Germany with respect to abuse
- and diversion of matrix patches?
- 11 A. I'd have to go back and
- refer to the actual report. But my best
- 13 recollection was that there were -- there
- was access to other compounds, including
- 15 heroin in -- in Europe such that the fact
- that a matrix formulation of fentanyl was
- available was not going to be a driver
- of -- of a switch to fentanyl from other
- 19 compounds that were widely available, and
- ²⁰ access to other compounds in Europe
- compared with the United States.
- Q. Licit or illicit compounds?
- A. Both licit and illicit.
- Q. Was it the finding of the

- 1 German expert that there was more access
- to heroin in Germany than in the United
- 3 States?
- A. I believe that was part of
- 5 the report.
- ⁶ Q. Have you seen that report
- ⁷ recently?
- 8 A. No, I have not.
- 9 Q. It wasn't something that you
- 10 reviewed in advance of your -- either
- your 30(b)(6) deposition or this
- deposition?
- A. If I did review it, it was
- quite some time ago. So I don't have a
- 15 recent recollection of it.
- Q. Do you recall what -- did
- you review it in advance of your Oklahoma
- deposition?
- A. Same answer. In a -- in a
- general sense I reviewed documents around
- what became the Citizen's Petition and
- that was part of the research that was
- done into differences between the United
- States and Europe. But I don't recall

- whether I reviewed that specific document
- or simply had a recollection of it from
- ³ the time that I was at Janssen.
- Q. Okay. "PGSM," the
- 5 pharmaceutical group strategic --
- A. Management --
- ⁷ Q. -- management "should be
- 8 able to weigh in with the EU concerns."
- 9 So this was before they
- 10 actually had the German report, correct?
- A. I believe so.
- Q. "It may very well be that
- abuse issues are different in Europe, but
- at the end of the day, the U.S. has a
- ¹⁵ \$1.2 billion at stake."
- What were you -- what's the
- \$1.2 billion at stake, what were you
- 18 referring to?
- 19 A. I believe I was referring to
- sales of Duragesic in the United States.
- Q. And how did you know the
- numbers of -- for the sales of Duragesic
- in the U.S.?
- A. It was probably available to

- ¹ me through the sales and marketing group.
- Q. "If the Duragesic
- 3 reservoir" -- that's the reservoir
- 4 matrix -- I mean the reservoir patch?
- ⁵ A. Yes.
- O. "If the reservoir is less
- ⁷ abusable than an unprotected matrix
- patch, we need to get that message out
- ⁹ with credible data to back it up."
- What do you mean by
- "unprotected matrix patch"?
- 12 A. I believe this referred to
- the fact that Duragesic reservoir had a
- 14 rate limiting membrane as part of the
- system; whereas, it was our understanding
- that the matrix patch, particularly the
- matrix patch that we anticipated coming
- 18 to market in the United States, did not
- have a rate limiting membrane.
- Q. And you say, "We need to get
- that message out with credible data to
- back it up." We talked yesterday about
- basically one of your responsibilities
- at -- in medical affairs to develop

- clinical studies or clinical trials or
- whatever, to develop data that would show
- ³ advantages or disadvantages with
- 4 competing products. Is that what you're
- 5 talking about here?
- A. Yes. We would want to
- 7 conduct studies that explored
- 8 differences -- potential differences in
- ⁹ abuse, misuse, and diversion between the
- marketed reservoir patch and a matrix
- 11 patch.
- Q. And at that time your
- working hypothesis, I take it, was that
- the reservoir was less abusable?
- A. Well, at that time we
- already had a report in 2001. There was
- the Pinney report that we commissioned in
- 18 2001 that had concluded that Janssen
- should not, in the United States, proceed
- with a switch to a matrix patch because
- there were concerns that a matrix patch
- could have a higher risk for abuse,
- misuse and diversion. And, therefore, we
- didn't switch in the United States.

1 Would it have been the same 0. 2 patch that was -- if you had switched, if you know, would it have been the same patch that was being sold in Europe? 5 Α. I assume so. I can't speak 6 to the manufacturing side. 7 Okay. Do you know if the --Ο. 8 well, the Janssen matrix patch had been approved by the FDA, even though I 10 understand that you were not selling it 11 in the U.S. at that time? 12 Α. In 2003? 13 Right. 0. 14 Α. No. 15 Q. It had not been? 16 We had not submitted the Α. 17 data for approval. 18 Let me show you Exhibit 21. 19 (Document marked for 20 identification as Exhibit 21 Janssen-Moskovitz-21.) 22 BY MS. CONROY: 23 Q. And this is 24 JAN-MS-011196462.

- Exhibit 21 is a
- ² February 3rd, 2004, e-mail, at least the
- top, from you to Richard Allcorn. And
- 4 you'll see at the bottom there is an
- ⁵ e-mail from Dr. Allcorn to you. And
- 6 attached to that is -- are some slides.
- 7 Does that look like -- does that look
- 8 like a printout of slides to you?
- ⁹ A. Yes.
- Q. Okay. Who is Dr. Allcorn?
- 11 A. I don't know that he was a
- doctor. He was the head of the
- 13 Mudskipper group that we spoke about
- yesterday, the group that we contracted
- with to put together the comprehensive
- summary of all the information that we
- developed from developing the reservoir
- patch to the matrix patch. And they
- 19 ultimately put together a White Paper
- that summarized all that information.
- Q. He signs his name "Dr." But
- you're not -- are you not sure?
- A. It would not be an M.D. If
- he -- if he was -- if he signs his name

- doctor, it's because he has a Ph.D., and
- ² I don't know in what.
- Q. Okay. Where is he located?
- 4 A. In the UK.
- ⁵ Q. And have you ever met him
- face to face?
- A. Yes, I have.
- 8 Q. And how did you know him?
- 9 A. I believe -- my best
- 10 recollection is that Gary Vorsanger had
- worked with him with other projects and
- was impressed with his ability to
- synthesize the data into a readily
- 14 accessible and readable format. And so
- after speaking with him and feeling
- comfortable that in fact they could do
- that, we brought them on.
- Q. Now, so that I understand,
- Janssen would prepare, or generate the
- data and then Dr. Allcorn, Mudskipper,
- would write it up?
- A. It's not that Janssen would
- generate the data. We would -- we
- ultimately funded a number of studies.

- ¹ Some of them were internal. Some of them
- were external to Janssen, such as the
- ³ attractiveness scale that Inflexxion did.
- ⁴ So the data came from various sources.
- ⁵ Ultimately all the data were fed into a
- 6 summary document that reflected all the
- ⁷ information we generated ourselves or
- 8 through outside groups.
- 9 Q. And even -- so Dr. Allcorn's
- White Paper would have included only
- 11 studies or data points that had either
- been generated by Janssen itself or by
- Janssen-sponsored investigators such as
- 14 Inflexxion?
- A. Yes. So if I may take a
- step back. This process started with an
- advisory group to look at a number of
- potential areas of research that would
- help to differentiate the reservoir patch
- from the matrix patch. Ultimately we
- embarked on funding a select group of
- those studies that could be done within a
- reasonable period of time.
- And it was those studies

- ¹ that were summarized in the White Paper
- ² report that Mudskipper put together for
- us, and that became the basis of the
- ⁴ Citizen's Petition.
- ⁵ Q. And I take it -- I take from
- 6 what you just told me then that
- ⁷ Dr. Allcorn did not -- was not going
- 8 outside of Janssen or Janssen-sponsored
- ⁹ studies to write his White Paper; he was
- using Janssen information?
- 11 A. In terms of the data, yes.
- 12 In terms of a backgrounder, he -- he
- would have included broadly available
- information about risks of abuse, misuse
- and diversion. But in terms of reporting
- the data, it was strictly what was
- provided to him.
- Q. And was he -- was he paid
- 19 for that work, to write the paper?
- A. Yes. Well, Mudskipper was.
- Q. Mudskipper.
- 22 And do you -- do you know
- whether there was a particular agreement
- that was signed with him? I think that

- there's some -- I saw something, a
- reference to an agreement. But would
- that have been you, or would that have
- been a different department at Janssen
- 5 that would have negotiated that agreement
- 6 with him?
- A. It would have been a
- 8 different department within Janssen. But
- ⁹ yes, there was an agreement. I can't
- 10 recall exactly who signed the formal
- 11 agreement, but he would have been paid
- 12 for the work that he did.
- Q. Did you meet face-to-face
- with anyone from Mudskipper to prepare
- this -- while they were preparing this
- White Paper?
- A. We had some face-to-face
- meetings and some teleconferences to
- discuss the formatting and where the data
- would be coming from. So yes.
- Q. If you take a look at your
- e-mail back to Dr. Allcorn. You tell him
- that apparently you're preparing -- there
- is going to be a teleconference on

- ¹ Friday. And then you say, "I've attached
- slides that we've used to outline the
- abuse program we are embarking on."
- We'll take a look at those
- ⁵ slides in a minute.
- But then if you go to the
- ⁷ next paragraph, it says, "The focus of
- 8 activities now is to differentiate
- ⁹ Duragesic (reservoir) from the
- unprotected matrix patch."
- So I think you've been
- telling me that was what you'd been
- planning to do. And now you're stating
- it; is that correct?
- A. That's correct.
- Q. You go on -- you say, "There
- are a series of studies we or ALZA will
- 18 conduct, including attractiveness,
- concept mapping, Inflexxion." Those are
- the two companies that will perform those
- studies, correct, the attractiveness
- 22 studies?
- A. Yes.
- Q. "Ease of extraction" --

- A. Well, it's not two
- ² companies. Concept mapping is the type
- of study, and it would be conducted by
- ⁴ Inflexxion.
- ⁵ Q. Thank you. And then ease of
- 6 extraction also to be conducted by
- 7 Inflexxion?
- 8 A. Yes.
- 9 Q. And PK, is that
- pharmacokinetics?
- A. Yes, it is.
- Q. -- "studies that are
- expected to show clinically relevant
- differences in serum concentrations under
- 15 conditions likely to be encountered in
- clinical practice (we know the matrix
- patch is bioequivalent in 'normal healthy
- volunteers')."
- Can you explain to me what
- that means, what you were attempting to
- do with the serum concentration study?
- A. Yes. So before a generic
- compound could be approved or even a
- switch from reservoir to another

- ¹ formulation, one of the regulatory
- ² requirements is to show that it's
- ³ bioequivalent. That is to say that,
- 4 depending upon the route of
- 5 administration, in this case obviously it
- 6 was transdermal, that the -- the amount
- of the active product, in this case,
- 8 fentanyl, that enters the bloodstream
- ⁹ over a period of time is similar within
- specified regulatory guidelines to the
- original compound.
- So in this case, the matrix
- compound in a healthy normal patient --
- volunteer population, subject population,
- would have to show that the fentanyl
- transfer into the bloodstream was the
- same between the matrix patch and the
- reservoir patch within accepted
- 19 regulatory guidelines for -- for
- determining bioequivalence.
- Q. And did you -- was it your
- 22 expectation in the studies that there
- would be differences between the
- reservoir and the matrix patch with

- 1 respect to the serum blood levels that
- would -- that would reach a patient?
- A. In other conditions outside
- 4 of routine applying a patch to a normal
- ⁵ healthy volunteer.
- ⁶ Q. So give me an example of
- ⁷ what that might be.
- 8 A. So that might be -- if you
- 9 look at the package insert, there are
- warnings against heat sources. So for
- patients who might have fever, for
- patients who might be exposed to heat
- sources such as heating pads or sauna,
- that in those situations there might be a
- difference in delivery of the fentanyl
- between a -- a reservoir patch that was
- sold in the United States and a
- 18 hypothetical matrix patch.
- Q. Who would get more of the --
- of the drug?
- 21 A. Well --
- Q. Under those -- under the
- conditions you're talking about, like
- heat?

- A. So ultimately we did show
- that under certain conditions -- and
- another condition also was denuded skin.
- 4 O. Would mean abraded --
- A. Abrade -- abraded --
- 6 Q. -- or if someone had an
- open, some sort of open --
- A. A wound or even if they put
- ⁹ a patch on the same area. The package
- insert warns against putting a patch
- on -- in the same area, but in situations
- like that, ultimately we did show that
- there were differences in delivery of
- 14 fentanyl between the matrix and the
- 15 reservoir patch.
- Q. And the difference that you
- showed was that the matrix patch could,
- under certain conditions, such as heat or
- abraded skin, deliver more fentanyl to a
- patient?
- A. Potentially, yes.
- Q. Then you go on and say, "A
- white paper will collect available data
- and new data as they are generated to

- 'paint' a full picture of risks
- ² associated with the matrix patch."
- So this was an attempt to
- 4 differentiate between the reservoir patch
- 5 as a safer patch than the matrix patch?
- A. Well, let's be careful on
- ⁷ the term "safe." We were looking
- 8 specifically at issues of abuse, misuse,
- ⁹ diversion. Safety encompasses a lot more
- than that, including adverse event
- ¹¹ profile.
- So we were looking at
- primarily issues of abuse, misuse and
- diversion. And our hypothesis in doing
- the studies was that there may be
- differences in those areas between the
- 17 reservoir patch and the matrix patch.
- Q. Would you agree with me,
- however, that heat conditions in abraded
- skin, that would be -- that's not abuse,
- ²¹ diversion or misuse?
- A. Well, in a sense it's -- if
- you -- if you apply heat, you are
- misusing the patch.

- Q. What about someone who is in
- ² a sauna, is that a misuse of the patch?
- ³ A. In the sense that the
- 4 package insert warns against exposing the
- ⁵ patch to a heat source including sauna,
- it would be misusing the patch.
- ⁷ Q. Does it say sauna in the
- 8 label?
- ⁹ A. It does.
- O. And what about in a warm
- 11 car, something like that, did you test it
- in conditions where it wasn't something
- like a sauna, but where you were in an
- environment that was very warm?
- A. I think in a broad sense we
- warn against heat sources, and examples
- of the heat sources might be a heating
- pad or a sauna or a fever.
- Q. If you turn the page -- it
- might be two pages, let's take a look at
- 21 the slides.
- Do you know if -- did you
- prepare these slides? Do you know who
- ²⁴ did it?

- A. If I didn't prepare all of
- them, I had input to it.
- Q. You had, I'm sorry? You --
- ⁴ A. I would have had input to
- ⁵ it.
- Q. Okay.
- A. I -- I don't see a signature
- 8 who -- who actually prepared the slides.
- 9 Q. Okay. Let's take a look at
- the first slide after the title page that
- 11 says Background.
- Do you see that?
- A. Yes.
- Q. Page 2. It says, "There was
- an abuse liability expert meeting that
- was convened in November of 2003."
- Were you present at that
- meeting?
- A. I was.
- Q. Do you recall who the
- 21 experts were that attended that meeting?
- A. Oh, it was a fair size
- group. I'd have to go back to the
- listing. It would include Nat Katz.

- ¹ Dr. Coleman. I believe Dr. Steve Passik
- was there. Again, I couldn't give you a
- ³ full listing.
- Q. Are they -- Dr. Passik is a
- 5 key opinion leader?
- A. Dr. Passik is a psychologist
- ⁷ who is considered an expert in -- in pain
- 8 issues.
- ⁹ Q. Were the experts that were
- invited to the abuse liability panel
- meeting all key opinion leaders for
- ¹² Janssen?
- 13 A. They were all experts in
- their area of -- of concern. So we had
- DEA representatives, representatives who
- understood regulatory issues, so I -- I
- would refer to them as -- as subject
- experts.
- Q. Well, let me ask it a little
- differently. Were these experts who had
- 21 all been paid by Janssen either in the
- 22 past or at the time of this meeting as
- either key opinion leaders or subject
- experts?

- A. Yes. They -- we would have
- had contracts with them to pay for their
- 3 consulting services.
- Q. And they would have had
- ⁵ those types -- everyone that you named
- 6 that was in this, had all had consulting
- ⁷ agreements in the past prior to November
- ⁸ of 2003?
- ⁹ A. I can't say for certain
- whether one or more of the individuals,
- this might have been the very first time
- we contracted with him or her. I just
- don't recall.
- Q. Okay.
- A. For certain, some of them
- had been experts to Janssen previously.
- Q. Right. Some of the names we
- 18 recognize from -- correct.
- A. Right.
- Q. And then if you take a look,
- you had -- you had a goal. And we'll
- take a look at some of those studies that
- ²³ are in the slides that are after this
- ²⁴ first slide.

- And then outcome, you say,
- or someone in the slide says,
- ³ "Unanimously agreed that the proposed set
- 4 of abuse liability studies under one
- ⁵ year" -- does that mean they would be
- 6 completed in under a year?
- ⁷ A. Yes.
- ⁸ Q. -- "would by themselves be
- 9 convincing evidence of differences in
- abuse liability."
- Does that mean that the
- panel unanimously agreed that the studies
- would be convincing?
- A. I believe so.
- Q. But the studies had not yet
- been conducted, correct?
- A. That's correct.
- Q. Then the next slide it says,
- "At an internal J&J meeting on
- January 11th, it was agreed that
- differentiating Duragesic from other
- transdermal fentanyl systems would
- require demonstrations of reduced abuse
- liability and improved safety profile

```
1
    to" -- "profile compared to the matrix."
2
                 Who was present, if you
3
    recall, at the internal J&J meeting?
4
                  I don't recall who was
5
    present. My best assumption would be
6
    that we had representatives of legal,
7
    regulatory, perhaps senior management,
8
    because these had to be funded.
                                      The R&D
9
    group, the research and development
10
    group, as well as elements of medical
11
    affairs that might include outcomes
12
    research in the biostatistics group.
13
                  But I don't know -- I don't
```

- 14 have a recollection exactly who was at
- 15 the meeting.
- 16 Okay. Do you know if anyone
- 17 from Europe was present at the meeting?
- 18 More likely than not, Α.
- 19 representatives of the R&D group were
- 20 present and they represented the global
- 21 development of -- of the pain products.
- 22 So they would have represented the
- 23 fentanyl outside the United States, and
- 24 perhaps, again I don't have the listing,

- 1 represented the -- the group PGSM that we
- spoke about, may have been there.
- Q. What's the difference
- 4 between reducing abuse liability and
- improving the safety profile?
- A. So primarily reducing abuse
- ⁷ liability refers to the attractiveness of
- 8 one formulation, the reservoir, versus
- ⁹ the matrix. And this would be primarily
- to a nonpatient population, if a group
- was looking to divert the drug, whereas
- the safety profile would refer to both
- patients and nonpatients. So for
- example, from a safety profile
- standpoint, when we spoke about
- differences -- potential differences in
- delivery of fentanyl if there was a heat
- source applied, that might refer to a
- patient who accidentally or intentionally
- is exposed to a heat source. And -- so
- that's what we refer to in the safety
- ²² profile.
- Q. Do you know if any of the
- safety profile studies had been conducted

- in Europe to determine if there were
- issues with heat and abrasion with the
- matrix patch that was sold by Janssen in
- ⁴ Europe?
- A. I don't.
- ⁶ Q. And would that have been a
- 7 place that you would have -- if those
- 8 studies did exist, is that a place you
- ⁹ would have looked to make a determination
- about the differences between the
- 11 reservoir patch and the matrix patch in
- ¹² the U.S.?
- A. Potential differences.
- 14 There may have been data that were
- developed that looked at some of these
- issues. But in a laboratory setting, I
- don't recall exactly.
- Q. If you take a look at the
- next page, these are the studies that are
- being proposed by medical affairs; is
- that fair to say?
- A. Yes.
- Q. And it would differentiate
- Duragesic, which, by saying Duragesic

- that means the reservoir patch, correct?
- ² A. Correct.
- ³ Q. From the matrix and other --
- 4 what does MRO stand for?
- A. I don't recall.
- Q. Do you think it means
- ⁷ something like similar to a matrix patch?
- ⁸ A. In the context of the title,
- ⁹ it would be other formulations of a patch
- that delivered fentanyl over an
- extended-release period.
- 12 O. That was not a reservoir
- 13 patch?
- 14 A. It's probably modified
- 15 release opioids.
- Q. Okay. But in a matrix --
- with the matrix technology?
- A. No. Because if it's
- modified release opioids, then we're also
- comparing fentanyl here to other -- not
- necessarily fentanyl, other opioids that
- ²² are delivered in an extended-release
- mechanism.
- Q. Like an OxyContin?

- A. Like OxyContin --
- O. Like a continued --
- A. -- where there's extended
- 4 release of oxycodone.
- ⁵ Q. And so here, you've spoken
- to me about this before. You have the
- ⁷ abuse liability studies that would be
- 8 done. And they would determine
- 9 attractiveness to an abuser. Is that
- what that means?
- A. Potential attractiveness to
- someone who might look to divert the
- product or to someone who is seeking to
- ¹⁴ abuse the product.
- Q. Extractability, does that
- mean how easy or difficult it is to get
- the fentanyl out of the -- either the
- 18 reservoir or the matrix?
- A. Yes.
- Q. And human abuse liability,
- what does that mean?
- A. Similar to attractiveness,
- it would be whether the product is more
- easily abused than the reservoir patch.

- 1 Some of the same components about abuse
- 2 liability would also -- may also make it
- ³ more attractive.
- Q. Okay.
- ⁵ A. I think the concept of
- 6 attractiveness doesn't necessarily
- ⁷ include just use of the product. It
- 8 would also be how attractive it is to
- ⁹ divert the product, but not necessarily
- use it yourself.
- Q. Would that have anything to
- do with the supply of the product, how
- ¹³ available it is?
- A. Well, it would be how easy
- it is to gain access to the fentanyl in a
- product, regardless of how you access the
- original fentanyl.
- Q. Okay. So you're talking
- about how to get the fentanyl out as
- opposed to how accessible a patch might
- ²¹ be?
- A. Or how easily it is to
- transport it too.
- Q. What does that mean?

- A. So let's -- one of the
- 2 hypotheses going in, because we knew this
- from the report we had from Pinney in
- ⁴ 2001, was that in contradistinction to
- ⁵ the reservoir patch where if it was cut,
- ⁶ you'd have leakage of the entire contents
- of the patch. A matrix patch could be
- 8 cut and give more consistent sizes of the
- 9 matrix patch, and, therefore, might be
- more easily diverted or sold.
- Q. And that's -- you call those
- party dots when they put up the matrix
- 13 patch?
- 14 A. That was one concern that we
- had in the context of other drugs of
- abuse. We knew at the time that
- ¹⁷ fentanyl, reservoir patch, was not
- attractive in that respect. But we had
- concerns that if you could get to a form
- that delivered a clear dose, that that
- ²¹ might become more attractive than the
- reservoir patch.
- Q. And I think I've read in
- some of the materials that the Duragesic

- 1 reservoir patch for an abuser would
- really only be able to be sold once
- because it would just be the total
- ⁴ release of the fentanyl?
- ⁵ A. It was not an attractive
- 6 formulation of fentanyl for a variety of
- ⁷ reasons, which included that it was
- 8 difficult to get to a controlled dose of
- ⁹ fentanyl.
- Q. Versus the matrix patch
- which could be cut into smaller pieces
- and each one of those pieces could be
- sold and each one of those pieces could
- deliver fentanyl?
- A. That was the concern.
- Q. And then if we look in each
- 17 one of the studies on this slide -- is
- the first one, abuse liability. And this
- is ease of extractability of fentanyl
- ²⁰ from transdermal fentanyl systems. So
- that's both the reservoir and the matrix,
- 22 correct?
- A. It was a comparison between
- 24 the two.

- Q. And objectives are listed.
- 2 And then there's the optimal outcome, is
- that, "Less fentanyl recovered from the
- ⁴ Duragesic" -- which is the reservoir
- 5 patch -- "and it's easier to extract from
- 6 the unprotected matrix."
- 7 That's what you -- that
- 8 would be the best finding for the study,
- 9 correct?
- A. And we already had some data
- 11 to suggest that that would differentiate
- 12 the two.
- 0. Okay. So it would be --
- that would be the optimal, as you say
- here, outcome of this study, if you were
- attempting to differentiate the reservoir
- 17 as a safer -- and I understand safer
- means both for the patient and for the
- nonpatient -- than the matrix?
- A. In a broad sense, yes. When
- ²¹ I'm speaking about safety, I'm talking
- not just about the adverse event profile
- but the potential for abuse, misuse and
- ²⁴ diversion.

- Q. Correct. And then you list
- your strategic partners. Tell me who
- ³ ALZA is.
- 4 A. ALZA is --
- o. ALZA.
- A. -- the manufacturer of
- ⁷ Duragesic. They were the originators of
- 8 the Duragesic patch.
- ⁹ Q. And are they a part of
- Janssen or how are they related?
- A. Janssen bought ALZA. So it
- became a part of Janssen, Johnson &
- Johnson. And subsequently it was
- subsumed entirely under Janssen.
- Q. Where were they physically
- 16 located?
- A. In California. I believe
- it's Mountain View, California.
- Q. And who is Bob Bianchi?
- A. Bob Bianchi worked with
- Inflexxion. He was one of the principals
- 22 at Inflexxion and an expert in issues of
- ²³ abuse liability.
- Q. And status, the contract was

- under negotiation. Who would there need
- to be a contract with? Would Inflexxion
- 3 be one?
- 4 A. Yes. Inflexxion was one of
- 5 the groups that would develop a study of
- 6 attractiveness.
- ⁷ Q. And would there need to be a
- 8 contract with ALZA?
- ⁹ A. Well, with Janssen. Because
- we were marketing the product.
- 11 ALZA produced the product.
- ¹² Janssen marketed the product.
- Q. If you -- the budget on this
- one is to be determined. If you turn the
- page, there's an ease of extractability
- study. And the budget was determined to
- ¹⁷ be \$220,000, correct?
- Do you see --
- 19 A. I'm sorry. I see a budget
- that says TBD.
- Q. Go to the next page.
- A. I'm sorry.
- Q. Yeah, go to the next page.
- 24 And then here we have another study on

- ¹ abuse liability.
- ² A. Ease of extractability.
- Q. And -- yeah. And the
- 4 strategic partner is Inflexxion.
- Do you see that?
- ⁶ A. Yes.
- ⁷ Q. And you have a timeline. It
- 8 would take about seven months to do this
- 9 study. And the budget that was
- determined -- was determined at this time
- 11 to be \$220,000, correct?
- A. Yes.
- Q. And when you say budget
- 14 \$220,000, was that to be paid to
- 15 Inflexxion?
- A. That's my assumption.
- Q. Were you -- were you also
- evaluating what it would cost internally
- in medical affairs to -- how does the
- budget work?
- A. Oh no, the -- we wouldn't
- budget internal time. This would be what
- we would be paying the contract
- organization that would be conducting

- ¹ these studies.
- Q. Okay. So that would be
- money sent out of Janssen to someone
- 4 else?
- ⁵ A. Yes.
- Go to Page 9, please, which
- ⁷ is abuse liability, again a proposed
- 8 study. This is the impact on euphoria
- 9 produced by matrix fentanyl via
- buccal/sublingual ingestion.
- Have you found that one? Do
- 12 you see that?
- A. Yes.
- Q. So that is impact of
- euphoria if you put it between your gum
- and your cheek?
- A. Yes.
- Q. And who is -- I see the
- strategic partner is Dr. Jasinski. Who
- ²⁰ is he?
- A. A subject expert, not a
- Janssen employee.
- Q. Okay. Do you know him?
- A. I came to know him during

- the course of the discussions over these
- ² studies.
- ³ Q. Was this study ever
- 4 conducted?
- A. I don't believe so.
- Q. Do you know why?
- A. I can't say for certain.
- 8 But I believe it wasn't conducted because
- 9 it didn't add to the other data that we
- were going to be developing to
- differentiate the reservoir from the
- ¹² matrix.
- Q. Was the -- was the concept
- behind this study that somehow the
- 15 reservoir patch, if it was abused and put
- between the gum and the cheek, would not
- produce as much of a high as if you did
- the same thing with the matrix patch?
- 19 A. That's my assumption because
- you would have evaporation of the
- alcohol, and the absorption may be
- different than the matrix. That's my
- best recollection, that in fact we would
- show a difference between the two

- ¹ formulations.
- Q. And you have an optimal
- outcome that Duragesic, which is the
- ⁴ reservoir, has a less euphoric effect.
- ⁵ Had you -- did you, like the others, have
- 6 some data on that?
- A. If the concentration of
- 8 fentanyl was lower, it should have a less
- 9 euphoric effect.
- O. And would the concentration
- of fentanyl be lower in the reservoir
- than in the matrix patch?
- A. Well, I would say that the
- 14 concentration that crosses -- crossed the
- buccal mucosa might be lower. The amount
- of fentanyl might be the same, but
- because of the -- you wouldn't have the
- same sticking ability and you don't have
- the same formulation that is driving the
- fentanyl. So there might be a difference
- in -- in the amount of fentanyl that's
- ²² transferred.
- Q. Does the matrix patch
- deliver more fentanyl than a reservoir

- ¹ patch?
- A. If you go back to the
- ³ pharmacokinetic studies that showed
- bioequivalence, in a healthy volunteer
- ⁵ population, the rate of delivery of
- 6 fentanyl is similar between the two
- ⁷ formulations.
- ⁸ Q. But if you are putting it
- 9 between your gum and your teeth -- or gum
- and your cheek, something changes about
- the release of the -- something changes
- about the amount of fentanyl that's
- 13 released?
- 14 A. That may be the case. This
- is what we were considering exploring.
- Q. What did you already know
- about that though?
- A. Well, we knew there were
- oral formulations of fentanyl; Actiq was
- one, and so that -- that fentanyl could
- be delivered via sublingual or buccal
- mechanism fairly quickly. So we
- certainly had data for other
- ²⁴ formulations.

- Q. What -- what I'm talking
- about is what did you have that you knew
- ³ about the difference in the
- 4 concentrations that would be released
- 5 between the reservoir and the matrix --
- A. I don't know --
- ⁷ Q. -- regardless of where it
- 8 was located?
- 9 A. No. I don't recall the data
- that we had that might have indicated
- that there would be a difference between
- 12 the two.
- Q. Okay. But you did have --
- you must have had some data because that
- would be the only way that you would be
- 16 able to address --
- A. Or at least some
- 18 hypothetical data that -- towards which
- we considered doing this study.
- Q. And that hypothetical
- 21 data -- what is hypothetical data?
- A. It may be data that -- so --
- so if we are looking for actual subject
- data, the hypothetical data may be data

- that comes from a laboratory setting, not
- in a -- in a human. But data under a
- 3 controlled condition -- I'm thinking this
- 4 through -- where it may be exposed to
- 5 saliva and not in a patient and through a
- 6 membrane where you are measuring what
- ⁷ crosses the membrane. That's what I mean
- 8 by hypothetical data.
- 9 Q. Did -- did Janssen have data
- that showed that there were different
- amounts of fentanyl that would be
- 12 released from a reservoir patch to
- between -- reservoir patch and a matrix
- 14 patch?
- A. Again, if we are talking
- about a -- a normal volunteer population.
- 0. I understand that. The
- 18 normal volunteer population, it's your
- understanding it's bioequivalent?
- A. Correct.
- Q. My question is different.
- I'm not talking about a normal. I'm
- talking about a patient population or
- maybe a lab test. Is there -- does

- ¹ Janssen have any data that would suggest
- that there is a greater release of
- ³ fentanyl from a reservoir versus a matrix
- ⁴ patch or a matrix versus a reservoir?
- ⁵ A. Without having tested it in
- ⁶ a normal volunteer population, we
- 7 probably did have laboratory studies
- 8 that, for example, might have shown --
- 9 again I don't recall -- might have shown
- that there was a differential rate of
- delivery in a system where heat was
- ¹² applied.
- 0. And that would mean that
- more fentanyl would be released from a
- matrix patch than a reservoir patch?
- A. Where you are adding heat to
- the delivery system.
- Q. Did Janssen have any data,
- not with respect to applying heat or
- other types of misuse, that measured the
- rate of release of fentanyl from a
- reservoir patch versus a matrix patch,
- not in a normal volunteer population?
- A. We -- we had data certainly

- ¹ for the reservoir patch, which is why we
- have the warnings, that with heat, you
- ³ would have greater delivery of fentanyl.
- ⁴ That's part of the reason we have
- ⁵ warnings for heat delivery.
- I don't know whether or what
- ⁷ data were developed before the matrix
- 8 came to market along the same lines. But
- ⁹ we knew that even with the reservoir,
- applying heat would lead to a greater
- 11 release of fentanyl across the skin than
- ¹² without heat.
- Q. Do you know if there was any
- data in Europe with respect to the amount
- of fentanyl released from the Janssen
- 16 matrix patch?
- A. Under conditions of --
- Q. Any -- do you know of any
- data at all about the amount of fentanyl
- that would be released from the matrix
- 21 patch that was -- studies conducted --
- ²² conducted in Europe?
- A. Yes. The pharmaco
- equivalent studies, the bioequivalent

- 1 studies showed that the same amount of
- ² fentanyl would be released with the
- matrix patch and -- and a reservoir
- 4 patch.
- If your question is did we
- 6 do studies under other conditions, I
- ⁷ don't recall what was done for the matrix
- 8 patch relative to the reservoir patch.
- ⁹ Q. Do you consider buccal
- ingestion to be applying heat?
- 11 A. It's certainly warmer in the
- mouth, but you have other conditions
- present as well. I mean it's certainly
- misuse of the product.
- Q. So is your answer no or
- you're not certain?
- A. Well, it's not only that you
- have a warmer environment, there are
- other factors that are playing into the
- potential transfer of fentanyl.
- Q. Do you have an understanding
- based on any data that you have seen why
- the Duragesic reservoir would have less
- of a euphoric effect?

- 1 A. The euphoric effect would be
- ² related to the concentration of fentanyl
- in the blood. So any difference in the
- 4 euphoric effect would be related to how
- 5 much drug is transferred over what period
- of time. So even if you have the same
- 7 amount, if it's released more rapidly,
- 8 that may lead to a greater euphoric
- ⁹ effect.
- Q. And the -- the hypothesis
- 11 here in this study was that the matrix
- would release it faster than the
- 13 reservoir patch?
- A. That potentially it would.
- ¹⁵ Again, a lot of the studies overlapped.
- So, in fact, that's what we found with
- other solvents, that -- in other
- solvents, fentanyl in a matrix patch was
- 19 released more rapidly and to a greater
- degree than it was with the reservoir
- patch.
- Q. And that would -- that would
- create more euphoria?
- A. Because it's being released

- ¹ at a more rapid rate, yes.
- Q. If you turn the page.
- ³ The -- this is again an abuse liability
- 4 study. And the optimal outcome is that
- ⁵ Duragesic has a more aversive effect.
- ⁶ This is also to be conducted by
- ⁷ Dr. Jasinski.
- 8 Aversive effect is -- is an
- 9 avoidance effect, is that what it is?
- A. Yes.
- Q. And what was -- do you know
- if the study was ever conducted?
- A. It was not.
- 0. And it was aversive
- properties of transdermal fentanyl
- systems, so that would be both the
- 17 reservoir and the matrix, up at the top,
- 18 right -- right underneath the title?
- A. Okay, yeah.
- Q. It would be both the
- reservoir and the matrix?
- A. And I'm seeing, again at the
- top, so this would be in a subject
- population of dependent opiate abusers.

- O. Correct. That would be
- what -- what Dr. Jasinski -- the proposed
- ³ study that Dr. Jasinski would perform was
- 4 whether there were aversive properties
- ⁵ for both the reservoir as well as the
- 6 matrix patch in dependent opiate abusers,
- ⁷ correct?
- 8 A. Whether there were
- ⁹ differences in -- in the aversive effect.
- Q. Okay. And the -- and the
- optimal outcome would be that the
- Duragesic had more aversive effect. They
- were more likely to avoid --
- A. Avoid the Duragesic
- 15 reservoir formulation than a matrix
- 16 formulation. I guess to flip the same,
- that they would prefer the matrix
- 18 formulation.
- Q. And do you have -- do you
- ²⁰ recall why a dependent opiate abuser
- would prefer the matrix?
- A. It was hypothetical, because
- the matrix is not on the market. But
- again it would relate -- so these are

- dependent opiate users. They need the
- active -- the -- so let's go back to
- the -- to the mechanism of action.
- It is the opiates bind to
- the mu opioid receptor. That's what
- 6 causes pain relief but potentially leads
- ⁷ to dependence. So these are individuals
- ⁸ who are dependent. That is to say, when
- ⁹ they lack the opiates that occupy the new
- receptor, they begin to exhibit symptoms
- of withdrawal.
- So in that population, if
- they are using the product that is
- 14 releasing fentanyl at a lower rate over
- time than another product, in this case
- the reservoir versus the matrix, because
- they are dependent upon an activation of
- the mu opioid agonist, it would be more
- 19 aversive to them than a product that
- delivered an opioid more rapidly.
- Q. And so your -- your working
- 22 hypothesis was that the reservoir patch
- had a lower rate of release of fentanyl
- than the matrix?

- A. And that would in turn
- inform the abuse -- the aversive effect
- of the product.
- Q. And what -- what data did
- 5 you have that showed that there would be
- a lower rate of release of fentanyl in
- ⁷ the reservoir patch versus the matrix
- 8 patch?
- ⁹ A. Laboratory data that showed
- differences in solvents.
- Q. And that was laboratory data
- 12 at Janssen?
- 13 A. It may have been Janssen.
- 14 It may have been outside groups that
- developed the data and provided those to
- Janssen.
- Q. And there was something
- about the solvents in the reservoir patch
- versus the matrix patch that resulted in
- less fentanyl being released or being
- more slowly released from the reservoir
- patch than the matrix?
- A. Well, not solvents -- no,
- not solvents in the product itself.

- 1 Solvents that might be used to get access
- to the fentanyl. But even within the
- product itself, we spoke previously about
- 4 the fact that Duragesic had a
- ⁵ rate-limiting membrane, and the
- 6 hypothetical matrix patch didn't.
- 7 So that also might
- 8 contribute to a more rapid release of
- ⁹ fentanyl across the buccal mucosa, or
- across any membrane, than the Duragesic
- 11 reservoir patch.
- Q. Because the Duragesic
- 13 reservoir patch has that thin protective
- membrane, correct?
- A. Rate-limiting membrane.
- Q. And rate-limiting means that
- it was limiting the rate of the release
- of the fentanyl?
- A. Yes.
- Q. And I just wanted to ask,
- one thing that you had said, matrix was
- not -- a matrix was not on the market --
- A. In the United States.
- Q. -- in the U.S. I just

- wanted to clarify. It was in the market
- ² in Europe --
- A. In Europe.
- Q. -- and it would be in the
- market in the U.S. in just a few more
- ⁶ years --
- ⁷ A. Yes.
- 9 Q. -- after this, correct?
- 9 A. Yes. Well, it would be on
- the market in a few more months if you're
- talking about the generic.
- Q. Right. By the other
- company.
- A. Yes.
- Q. Not by -- not by Janssen?
- A. Not by Janssen.
- 0. Correct.
- A. But it came to the market in
- ¹⁹ January of 2005.
- Q. Did Janssen have data
- 21 concerning the protective
- rate-controlling membrane of the
- reservoir patch compared to a patch that
- did not have that rate-controlling

- 1 membrane?
- A. Only for the reservoir
- patch. So we -- I believe that there
- 4 were data that compared a reservoir patch
- with a rate-limiting membrane, versus a
- 6 reservoir patch without a rate-limiting
- membrane, but not to a matrix patch
- 8 without a rate-limiting membrane.
- 9 Q. Okay. That latter study was
- never done, as far as you know?
- A. I don't know.
- Q. Okay. The -- this study
- talks about aversive properties of
- 14 transdermal fentanyl systems in dependent
- opiate abusers. Would you agree with me
- that there are also dependent patients
- that take -- that use a -- either a
- matrix or a reservoir patch?
- A. Yes. By definition,
- dependent means that if you -- if you
- withdraw the opiate, stop the delivery of
- the opiate, they would exhibit signs of
- ²³ withdrawal.
- Q. And that's your definition

- of dependent, that withdrawal would occur
- when the opioid is removed?
- A. If they no longer receive
- 4 the opiate.
- ⁵ Q. Turn the page. The next one
- ⁶ are the schema for the safety studies.
- ⁷ And then turn the page again. First
- 8 safety study is, "Safety After Chewing an
- ⁹ Unprotected Fentanyl Matrix Versus the
- Duragesic Reservoir Matrix," correct?
- A. Yes.
- Q. Was this study -- now, this
- is another Don Jasinski. Who is Tom
- 14 Kosten?
- A. I'm sure he was a subject
- expert. I don't recall exactly what his
- ¹⁷ affiliation or title was.
- Q. The optimal outcome here
- would be that the Duragesic reservoir
- patch, if it was chewed, would have less
- of a detrimental effect than if someone
- chewed the matrix patch, correct?
- ²³ A. Yes.
- Q. Was this study ever done?

- ¹ A. No.
- Q. Do you know why?
- A. Well, again, in the total
- 4 potential studies that were proposed and
- ⁵ evaluated within the context of the
- ⁶ budgets and the timelines, we selected a
- ⁷ subset of studies that were most
- 8 relevant. In this instance, just looking
- ⁹ at it today, it probably overlapped in
- some instances in data that we would be
- generating from some of the other
- 12 studies.
- Q. Do you know if any -- if
- there had been any data development prior
- to this with respect to chewing either a
- 16 reservoir matrix or a -- or the
- unprotected matrix -- I'm sorry, a
- reservoir patch versus the matrix patch?
- A. I don't know.
- Q. Do you know if any studies
- had been done in Europe?
- A. I don't know.
- Q. The next safety study was
- "The Effect of Heat on Fentanyl Release

- in Duragesic and Fentanyl Matrix." Do
- you know if this study was done?
- ³ A. Yes.
- ⁴ O. It was done?
- ⁵ A. It was done.
- Q. And the optimal outcome was
- ⁷ that Duragesic has less variability. Is
- 8 that what was found in the study when it
- 9 was ultimately conducted?
- A. I believe in fact we did
- show that there was less fentanyl
- transfer using a reservoir patch than a
- matrix patch.
- Q. Do you know what kind of
- 15 heat was used?
- A. I don't recall. It was
- probably a heating pad which could be set
- specifically to certain temperatures.
- But again, I don't want to -- I don't
- ²⁰ recall exactly.
- Q. Okay. Then I see another
- safety study. This is the one with
- respect to abraded skin. Was that done?
- A. Not in a human volunteer.

- ¹ This was done, I believe this was done in
- ² rats or mice.
- Q. Okay. That was also ALZA?
- ⁴ A. It was ALZA.
- ⁵ Q. And the next slide, this
- ⁶ just tells you when the studies would be
- 7 -- sort of a timeline for the proposed
- 8 studies?
- ⁹ A. Yes.
- Q. Okay. You can put that one
- 11 away.
- 12 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-22.)
- 15 BY MS. CONROY:
- Q. I'll hand you Exhibit 22.
- MS. CONROY: Sorry, folks,
- you'll have to use the...
- 19 BY MS. CONROY:
- Q. Doctor, this is -- it's hard
- to tell. This looks it might have -- I
- don't know whether this was slides or a
- booklet. It is JAN-MS-00725016. And
- it's a technology comparison, reservoir

- versus the matrix patch system. And it's
- ² sales training, dated February 25th,
- 3 2004.
- Does this look familiar to
- 5 you?
- A. I'm certainly aware of the
- ⁷ information that's here. I can't say
- 8 that I've seen this slide deck or this
- 9 exact presentation of the data. I'm
- certainly aware of the information here.
- Q. And are you aware that the
- sales force was trained with respect to
- the technological differences between the
- 14 reservoir and the matrix patch?
- A. Yes.
- Q. And would they have been
- trained sometime around the winter in
- 18 2004?
- A. Going by the date on the
- first page, that would seem to be the
- 21 case.
- Q. Did you yourself ever
- 23 conduct or speak at any sales training
- conferences or seminars about the

- differences between the reservoir and the
- 2 matrix?
- A. I don't recall that I did.
- ⁴ I spoke to sales representatives on a
- ⁵ number of topics. I can't say
- 6 specifically that I would have spoken to
- ⁷ them on the reservoir versus matrix or
- 8 that someone else in my group may have
- 9 done that, or that someone in the medical
- information group might have done that.
- 11 Q. Is it fair to say that if a
- 12 comparison was done and written up like
- this, your eyes would have been on this
- 14 at some point?
- A. We would have reviewed the
- information.
- Q. Did you ever do any webinars
- or any sort of video presentations for
- the sales force on any particular
- matters?
- A. I don't recall that I did
- webinars. Certainly I did some training
- 23 at sales meetings, particularly around
- clinical trial data. Again, I can't tell

- you the specifics of each and every
- ² presentation that I might have been
- ³ involved with.
- I don't recall that I had
- 5 any webinars as part of the sales
- 6 training. That doesn't mean that I
- ⁷ didn't.
- ⁸ Q. What about any videotaping
- 9 of some -- a time when you were speaking
- about things so that it could be viewed
- by others at a later date?
- 12 A. I know that there were
- instances where I was videotaped, and I
- believe some of those videotapes may have
- been for sales training purposes.
- Q. Have you ever had any media
- 17 training?
- A. Yes, I have.
- Q. And when did you have that?
- A. Oh, at various times over
- the course of my being with Janssen, both
- on the R&D side and on the medical
- ²³ affairs side.
- Q. And it was -- it was a

- Janssen though, you weren't -- you
- didn't -- this wasn't media training, you
- know, for like a rep theater or
- 4 something, this was Janssen?
- ⁵ A. Yes.
- Q. Was to do with your job?
- ⁷ A. Yes.
- Q. And if this -- this is just
- ⁹ a -- the key points between the reservoir
- and the matrix. And if we can just take
- a look, the reservoir has a rate
- controlling membrane that you have spoken
- to me about. And that regulates the flow
- of fentanyl into the skin; do you agree
- ¹⁵ with that?
- A. Yes.
- Q. It just explains there the
- 18 fentanyl and alcohol is in a gel. That's
- what the reservoir is, correct, a gel?
- A. It's the composition, yes.
- Q. It says, "Difficult to
- extract pure fentanyl from the patch."
- Do you agree with that?
- ²⁴ A. Yes.

- Q. And did you -- and you had
- ² conducted studies to show that?
- A. Well, so if you cut the
- ⁴ patch, you are going to be getting the
- ⁵ fentanyl in the cellulose gel and
- 6 alcohol. Then you would first have to
- ⁷ purify the fentanyl. So, yes, we knew
- 8 that -- that that would require more --
- ⁹ additional steps.
- Q. Right. Because to get the
- 11 fentanyl, you have to get rid of the gel?
- 12 A. And the alcohol -- the
- 13 alcohol and the cellulose gel, yes.
- Q. "Cutting the patch renders
- the system inactive." By that you mean,
- if you cut the patch, it renders the
- 17 system of extended-release pain relief
- 18 inactive?
- 19 A. The ability to deliver a
- controlled release of fentanyl over the
- ²¹ 72 hours inactive.
- Q. And, "13 years of proven
- safety." The reservoir patch had been on
- the market for 13 years at that point?

- ¹ A. Since 1990.
- O. "The matrix itself has no
- ³ rate-controlling membrane." The drug is
- ⁴ delivered directly into the skin,
- ⁵ correct?
- ⁶ A. Yes.
- ⁷ Q. And is that true today with
- 8 a matrix patch?
- ⁹ A. I believe that there are
- several formulations of matrix patches.
- 11 I can't speak to each and every one of
- 12 them. I -- there are matrix patches that
- don't have a rate-controlling membrane,
- but I can't speak to all of them.
- Okay. At the time when this
- was written, the matrix patch sold by
- ¹⁷ Janssen in Europe delivered the drug
- 18 directly onto the skin -- or into the
- 19 skin, correct?
- A. I believe so.
- Q. There was no
- rate-controlling membrane in the matrix
- patch, the Janssen matrix patch in
- Europe?

- ¹ A. I believe so.
- Q. Okay. And the -- and a few
- years later, the Janssen matrix patch
- 4 that was sold in the United States did
- ⁵ not have a rate-controlling membrane?
- A. I believe that's correct,
- ⁷ that it was very similar to the matrix
- 8 patch that had been sold in Europe.
- 9 Q. Are you familiar, at least
- until the time you left Janssen in 2011,
- of any Janssen matrix patch that had a
- 12 rate-control membrane?
- ¹³ A. No.
- Q. The next point is "Drug in
- adhesive formulation." And then the next
- point is "Unforeseeable extraction
- methods and implications."
- I'm -- I'm questioning this
- because I thought we -- we -- there are
- foreseeable extraction methods, correct?
- A. Yes. Put it in vodka.
- Q. Right. So this, this just
- means that, to the sales force, that
- there are many ways that fentanyl can be

- extracted from a matrix patch?
- A. Ways that we might not even
- 3 imagine.
- Q. Okay. "Cutting the patch
- 5 allows the system to remain intact." And
- ⁶ I think you explained to me why that is a
- ⁷ safety concern, because each one of the
- ⁸ pieces can deliver -- can be sold and
- 9 deliver fentanyl?
- 10 A. Can be sold and deliver a --
- a known quantity of fentanyl.
- Q. "Currently marketed matrix
- 13 systems are untested with controlled" --
- "with CII opioids."
- What does -- what do you
- mean by that?
- 17 A. There were other matrix
- systems for other drugs on the market but
- they were not Schedule CII opioids.
- Q. I see. So the -- the matrix
- patch that was either -- at this point
- now we are in February of 2004, was
- either just going on the market in the
- U.S. or it was about to go on the market?

- A. No. The matrix -- the
- 2 matrix patch didn't go on the market
- until January of 2005. There were other
- ⁴ drugs, nonopioids, that were available as
- ⁵ sustained-release formulations to deliver
- the drug in a matrix patch, but they were
- ⁷ not opioids.
- ⁸ Q. I see. Okay.
- ⁹ A. So I mean, the technology
- was well known, but they -- it had not
- been used at this time to deliver an
- 12 opioid.
- 0. I see.
- Turn the page. And I think
- that explains some questions I had about
- 16 this.
- The -- this is talking about
- the rate-controlled -- the
- 19 rate-controlling membrane in the
- reservoir versus the no-rate-controlling
- membrane in the matrix.
- 22 And then you -- this
- explains then why it's important. And
- then if you go to the last paragraph, it

- says, "The currently marketed matrix
- ² delivery systems are untested in real
- world prescribing situations with
- 4 Schedule II opioids."
- 5 That's what you were just
- 6 telling me, correct? Because it's been
- ⁷ tested with respect to other drugs,
- 8 there's no testing as far as you know
- ⁹ with respect to the delivery of a
- 10 controlled substance?
- 11 A. Of controlled substances,
- yes, that's correct.
- Q. "This means that physicians
- who choose the matrix are knowingly" --
- "are unknowingly investigators in an
- overdue safety trial."
- Do you see that?
- A. Yes.
- 19 Q. Had there been any safety
- trials of the matrix system with respect
- to the delivery of opioids in Europe?
- A. I -- I don't know.
- Q. Well, it would -- looking at
- this, it would suggest to me that Janssen

```
1
    was selling the matrix patch in Europe
2
    without any safety trials.
3
                 MR. LIFLAND: Object to the
           form of the question.
5
                  THE WITNESS: We were aware
6
           of the fact that there could be a
7
           hypothetical greater release of
8
           fentanyl under special conditions
9
           such as heat, but those conditions
10
           were warned against. It was true
11
           for the fentanyl reservoir patch
12
           as well.
13
                  What that meant in terms of
14
           a population of nonpatients who
15
           might choose to abuse, misuse or
16
           divert the drug was unknown.
17
    BY MS. CONROY:
18
                 But the -- this one isn't
19
    talking about abuse or diversion. This
20
    is just talking about patients, the --
21
    the matrix system was untested with
22
    respect to the release of a controlled
23
    substance to patients, to legitimate
24
    patients --
```

1 Other than --Α. 2 -- at this time in --Ο. 3 Well, other than the fact Α. that we knew even with a reservoir that 5 under conditions that we warn against 6 such as heat release, you would have a 7 greater release of fentanyl than without 8 those conditions. 9 Correct, but this suggests 10 to me that the reservoir patch had been 11 tested with respect to whether or not 12 controlled substances could be safely 13 administered to a patient. 14 MR. LIFLAND: Object to the 15 form of the question. 16 THE WITNESS: I'm not 17 following exactly your question 18 because by virtue of the fact that 19 there were pharmaco-equivalence 2.0 studies, bioequivalence studies 21 that showed under conditions of 22 appropriate use you would deliver 23 the same amount of fentanyl. By 2.4 virtue of those studies, you are

```
1
           showing similar efficacy and
2
           safety.
    BY MS. CONROY:
                  So this -- this statement to
4
5
    the sales force is not correct, it's
6
    false?
7
                  No, because we're not
           Α.
    talking about a controlled bioequivalent
8
9
    study. We're saying in real world --
10
    real world prescribing situations where
11
    we don't know how well the patient has
12
    been instructed on the appropriate use of
13
    the product.
14
                  It doesn't say that
15
    anywhere, does it?
16
                  Well, that's what we mean
           Α.
17
    by --
18
                  MR. LIFLAND: Objection to
19
           the form of the question.
20
                  THE WITNESS: That's what we
21
           mean by real world prescribing.
22
           So that's in contradistinction to
23
           a controlled pharmacokinetic
24
           bioequivalent study.
```

- ¹ BY MS. CONROY:
- Q. This says that it's untested
- in -- "the matrix is untested in real
- 4 world prescribing situations." What is
- 5 your understanding of a real world
- ⁶ prescribing situation?
- A. What might happen -- and
- 8 here we are talking about the United
- 9 States. Again, we already had data that
- the environment was different in Europe.
- 11 So when we say real world, it's in the
- context of the environment in which we're
- qoing to be using the product.
- There were no data on how --
- what would happen in the context of
- prescribing a matrix formulation versus a
- 17 reservoir formulation other than in a
- controlled environment where you're --
- where you're showing that the two are
- ²⁰ bioequivalent.
- 21 If the patient accidentally
- uses it in a manner other than
- prescribed, he or she might have
- different outcomes than in the controlled

- system of a laboratory that's looking at
- ² bioequivalence.
- ³ Q. In healthy human volunteers.
- A. Well, that's why I say, in
- ⁵ a -- in a real world patient population,
- 6 where we don't know whether the physician
- ⁷ has adequately counseled the patient on
- 8 the conditions to avoid, whether that
- 9 might lead to different outcomes than
- using the reservoir patch.
- Q. Was a -- was a safety trial
- ever done with respect to the matrix
- patch in a real world situation with
- ¹⁴ prescribing physicians?
- A. In a sense, it was because
- we used the matrix patch to gain approval
- for pediatric -- for the pediatric
- indications. So we had data, safety data
- ¹⁹ for the pediatric population.
- Q. And that was later in the
- ²¹ 2000s?
- A. That was -- led to the
- ²³ approval in 2005.
- Q. So the pediatric studies had

- been done by 2005?
- A. Were underway and filed so
- 3 that the approval came in 2005.
- Q. And then why were you
- ⁵ telling the sales force that a physician
- 6 who chooses the matrix are unknowingly
- ⁷ investigators in an overdue safety trial,
- ⁸ if you had data that showed that the
- 9 matrix was safe?
- 10 A. In a pediatric population.
- But in the broader -- that's a tiny
- 12 fraction of the market.
- The broader population, we
- can control what we inform the physician
- in terms of what he or she needs to do to
- educate the patient. But we had concerns
- that in real world use, especially if the
- drug is diverted outside the patient
- population, that there may be adverse
- outcomes that we couldn't predict based
- upon some of the data that we generated.
- Q. I understand that, and I
- think we see some of that data and the
- effectiveness -- in the attractability

```
and the extraction studies.
1
2
                  But this particular sales
    force educational piece, doesn't talk
    about abuse and diversion. If you look
5
    at the paragraph above, it says, "A
6
    rate-controlling membrane ensures the
7
    system delivers fentanyl at a constant
    rate throughout through wearing period,
    up to 72 hours, regardless of skin type.
10
    Without the membrane" -- which is the
11
    membrane in the reservoir -- "the skin
12
    itself must regulate drug delivery, which
13
    can lead to variations in delivery from
14
    patient to patient."
15
                  So this is not talking about
16
    abuse or diversion, correct?
17
           Α.
                  Correct.
18
                 MR. LIFLAND: Object to the
19
           form of the question. Let me make
20
           my objection before you start your
21
           answer.
22
                  THE WITNESS: Okay.
                                        Ι
23
           didn't know that you would object.
24
           I'm sorry.
```

```
1
                 MR. LIFLAND: Well, give me
2
           a moment then. I don't always,
3
           but occasionally.
                 THE WITNESS: When we put
           this together, our focus is on
5
6
                       In the back of our
           patients.
7
           mind, we also recognize that there
8
           is potential for these drugs to be
9
           diverted.
10
                  So yes, our focus is on
11
           patients, and we were concerned
12
           that if patients didn't follow
13
           appropriate use quidelines, that
14
           there was a concern in that -- in
15
           the patient population that there
16
           would be different outcomes than
17
           with a reservoir.
18
    BY MS. CONROY:
19
                 But the sales force doesn't
20
    know what's in your head, right?
21
                 MR. LIFLAND: Object to the
22
           form of the question.
                  THE WITNESS: Okay. I'll
23
24
           grant you that the sales force
```

```
1
           doesn't know what's in my head.
2
           But in putting the slides
3
           together --
    BY MS. CONROY:
5
              So the sales force reading
6
    this would not understand that what you
7
    may have been thinking about was abuse
8
    and diversion?
9
                  MR. LIFLAND: Objection.
10
    BY MS. CONROY:
11
                 This is --
           0.
12
                  MR. LIFLAND: Sorry.
13
    BY MS. CONROY:
14
                  This is talking about normal
15
    use by a physician prescribing it to
16
    wear it -- for a patient to wear it for
17
    72 hours?
18
                  MR. LIFLAND: Object to the
19
           form of the question.
20
    BY MS. CONROY:
21
                 Correct?
           O.
22
                  I would take a step back
23
    anyways. This is not information that we
```

are instructing a sales representative to

24

- have a discussion with a physician. This
- is for the sales representative to gain
- an understanding of the differences
- 4 between a potential matrix and the
- ⁵ reservoir patch.
- It's purely an educational
- opportunity so that they recognize
- 8 differences between the systems. It's
- 9 not meant for a sales purpose.
- Q. I thought the whole purpose
- of doing these studies was to identify
- 12 advantages and disadvantages between
- 13 products. Isn't that what the sales
- 14 force would be communicating to
- 15 customers?
- ¹⁶ A. No.
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: No, it's not.
- That formed the basis of the
- Citizen's Petition where we asked
- the FDA, that based upon the data
- that we generated, there be a
- consideration of the potential

```
1
           differences in abuse, misuse, and
2
           diversion between a reservoir
3
           patch and a matrix patch.
                  Those considerations should
           go into their decision whether to
5
6
           approve a matrix patch in the
7
           United States.
8
    BY MS. CONROY:
9
                 And you don't think --
10
                  If they never approved the
           Α.
11
    matrix patch, the sales force would
12
    continue to sell a reservoir patch.
13
                 But you don't believe the
14
    sales force would be using that
15
    information between the Mylan matrix
16
    patch and the Duragesic reservoir patch?
17
                  The sales force was
           Α.
18
    instructed on using the package insert
19
    and the approved promotional materials.
20
    If there was no approved promotional
21
    materials that spoke to differences
22
    between a reservoir patch and a matrix
23
    patch, then they wouldn't be using that.
24
           Q.
                  Despite training them on the
```

```
technological comparisons, correct?
1
2
                  MR. LIFLAND: Object to the
3
           form of the question.
                  THE WITNESS: We trained
5
           them on what would be coming down
6
           the pike, if you will. We trained
7
           them on other opioids as well,
8
           even though they weren't selling
9
           other opioids. They needed to
10
           have a broad base of knowledge
11
           about competitive products,
12
           including competitive products
13
           that might be coming to the
14
           market.
15
    BY MS. CONROY:
16
                 Were they precluded from
17
    ever stating any of this information to a
18
    physician?
19
                  If it was not part of
           Α.
20
    approved promotional materials, they
21
    were.
22
                  Do you know if there are any
           Ο.
23
    promotional materials that ever described
24
    the differences between the reservoir and
```

```
1
    the matrix system?
2
                  I don't recall.
           Α.
3
                 So if those exist, the sales
    force would have been allowed to promote
    the product by using a comparison between
5
6
    the reservoir patch and the matrix patch?
7
                  In theory, yes. And that --
           Α.
    if it existed, it might have been limited
8
9
    to simply a discussion of the basic
10
    characteristics, that one is in an
11
    alcohol and gel-based system and another
12
    product is available in a
    drug-in-adhesive formulation.
13
14
                 MR. LIFLAND: Just -- you
15
           don't need to speculate about what
16
           may or may not exist in terms of
17
           answering questions.
18
                  MS. CONROY: Let's take a
19
           five-minute -- I should say ten
20
           minutes.
                     Not sure.
21
                  THE VIDEOGRAPHER:
                                     Okay.
22
           Off the record, right?
23
                  The time is 10:53 a.m.
24
           We're going off the record.
```

```
1
                  (Short break.)
2
                  THE VIDEOGRAPHER: We are
3
           back on the record. The time is
           11:34 a.m.
5
    BY MS. CONROY:
6
                 Doctor, I'm going to mark as
7
    the next exhibit, 23, a primary care
8
    franchise update. It looks like a slide
    deck with your name on it from June 23,
10
    2004.
11
                  (Document marked for
12
           identification as Exhibit
13
           Janssen-Moskovitz-23.)
14
                 MS. CONROY: What did I say
15
           it was, 24? 23.
16
                  MR. LIFLAND: 23.
17
                 MS. CONROY: 23.
18
                 MR. LIFLAND: I quess we got
19
           the Bates number in the back.
20
                 MS. CONROY: I'm going to
21
           read it into the record. It's at
22
           the back of the document. It's
23
           JAN-MS-00492868.
24
    BY MS. CONROY:
```

```
Q. Doctor, we see here in the
```

- first slide -- this is -- we saw this in
- another slide deck as well. You are the
- 4 executive director of the primary care
- ⁵ division of medical affairs at this time,
- 6 correct?
- A. For the pain products, yes.
- ⁸ Q. For the pain products.
- ⁹ A. And actually, at this time
- it included gastrointestinal products. I
- 11 can see --
- 12 Q. Okay.
- A. -- Byron DeLemos was
- 14 reporting to me.
- Q. So you had some -- you had
- some GI products and -- oh, I see over
- 17 here. Byron DeLemos --
- A. DeLemos.
- Q. -- was reporting to you.
- 20 And then you have Gary
- Vorsanger, senior director. And he
- was -- he was working on the pain
- products, correct?
- A. Yes.

```
Q. And you explained to me
```

- yesterday what medical science liaison
- ³ did.
- Did they -- did medical
- ⁵ science liaison work for -- work with
- 6 both the GI products and the pain
- 7 products at that time?
- A. There were -- no, we didn't
- 9 have medical science liaisons that worked
- on the GI product. The GI products were
- 11 legacy products and they were not
- 12 actively marketed at the time. But if
- there were regulatory reporting
- requirements, that fell within my group.
- Q. And if you take a look
- through the slides. And we've seen some
- of this information before. If you --
- the slides are not numbered. There is
- one that says, "Play to Win Strategies."
- Do you know if that was the,
- 21 I'll call it the slogan for the year or
- the marketing plan slogan for the year?
- Does that have any familiarity with you?
- A. Very vaguely. I don't

- ¹ recall.
- Q. Okay. One of the
- ³ play-to-win strategies was to
- 4 differentiate Duragesic from the generic
- 5 matrix patch. Do you see that?
- ⁶ A. Yes.
- ⁷ Q. And the Duragesic is the
- 8 reservoir, correct?
- ⁹ A. Yes.
- Q. And the -- the two points
- here are that the patches can be cut
- which would be an avenue for diversion
- 13 and abuse.
- 14 Increased opportunities for
- misuse. That would be heat issues,
- things like that?
- A. Anything that's not per
- package insert, directions on use.
- Q. And then the second point is
- that the fentanyl matrix patches do not
- have a rate-controlling membrane, which
- we looked at earlier, which means that
- the -- the drug is directly on the skin,
- correct, there's no rate-controlling

- 1 membrane like there was in the reservoir
- ² patch?
- A. That's correct.
- Q. There's a little bit more on
- the next page, there's a little bit more
- 6 about that rate-controlling membrane.
- 7 The rate-controlling
- 8 membrane is a key feature of the
- 9 Duragesic reservoir patch, correct?
- A. Yes.
- Q. And it -- and the -- I take
- it the lack of the rate-controlling
- membrane could have significant
- implications for patient safety. And
- that's with respect to patients --
- patients who are properly or
- ¹⁷ appropriately using the product, correct?
- A. Potentially for patients who
- would not be using the product
- ²⁰ appropriately.
- Patients who would be using
- the product per package insert, i.e., not
- 23 applying heat, not cutting it, the matrix
- would deliver the same amount of fentanyl

- over the same period of time. When we
- 2 say patient safety, this is potentially
- if they were misusing the drug.
- Q. So is it your testimony you
- were only worried, or you were only
- 6 concerned about the existence or
- ⁷ nonexistence of a rate-controlling
- 8 membrane with patients who were misusing
- ⁹ the product, not -- by that I mean, and
- 10 not legitimate patients appropriately
- using the product?
- 12 A. Thank you. Legitimate
- patients appropriately using the product,
- we expected that the rate of delivery of
- 15 fentanyl would be identical, pharmaco
- equivalent to the Duragesic patch. So,
- 17 yes.
- Q. Why didn't you say that?
- A. Say what?
- Q. Why did --
- MR. LIFLAND: Object to the
- form of the question.
- BY MS. CONROY:
- Q. Why would you say

- significant implications for patient
- safety? Why -- why didn't you
- ³ describe -- in the above section you talk
- ⁴ about misuse and diversion, but that does
- 5 not appear to be the case in this bullet
- ⁶ point.
- 7 MR. LIFLAND: Object to the
- 8 form of the question.
- 9 THE WITNESS: This is an
- internal document that updates
- people. I don't know what I might
- have said around these bullet
- points. But certainly there were
- concerns that if patients weren't
- following the appropriate use
- guidelines, that they may be
- exposed to more fentanyl and that
- would represent a patient safety
- issue.
- BY MS. CONROY:
- Q. You can put that document
- away.
- It will be a little bit out
- of order, but let me show you Exhibits 25

```
1
    and 26.
2
                  (Document marked for
3
           identification as Exhibit
           Janssen-Moskovitz-25.)
5
                  (Document marked for
6
           identification as Exhibit
7
           Janssen-Moskovitz-26.)
8
    BY MS. CONROY:
9
              26 is a cover letter from
10
    Gayatri Sathyan to Gary Vorsanger, and
11
    you are on the cc list. And it actually
12
    attaches the -- Dr. Allcorn Mudskipper
13
    White Paper.
14
                 And then Exhibit 27 -- I'm
15
    sorry. 25 is the confidential draft
16
    document, White Paper. And it's the
17
    August 16, 2004, draft.
18
                  The -- Exhibit 26 is
19
    JAN-MS-021029711, and the White Paper,
20
    Exhibit 25, is JAN-MS-02109712, and it's
21
    an attachment to Exhibit 26.
22
                 MR. LIFLAND: No, actually
23
           she's going to hand you --
24
                 MS. CONROY:
                               I'm going to
```

```
1
           hand you this one so that you have
2
           the stickers. So the title --
3
                  MR. LIFLAND: Sorry. The
4
           first page is 25, and the next one
5
           is --
6
                  MS. CONROY: No.
                                     The first
7
           page is 26. The attachment is 25.
8
                  MR. LIFLAND: Okay. Thank
9
           you.
10
    BY MS. CONROY:
11
                  If we take a look at
12
    Exhibit 26 first, the cover letter.
13
                  I'm sure I've butchered the
14
           Gayatri Sathyan, who is that?
    name.
15
                  It was an ALZA
           Α.
16
    representative. I don't recall
17
    exactly -- based upon the totality of
18
    what I'm looking at, probably somebody
19
    who was working in the pharmacokinetic
20
    group or assessment of -- of drug
21
    delivery systems.
22
                 And we know who
23
    Dr. Vorsanger is?
24
           Α.
                  Yes.
```

- Q. And Suneel Gupta in -- is
- ² also at ALZA?
- ³ A. Yes.
- 4 O. You can tell that from the
- ⁵ address?
- ⁶ A. Yes.
- ⁷ Q. And then I think you told me
- 8 Clare Harte is in medical affairs as
- 9 well; is that correct?
- 10 A. That's correct. She was in
- the operations group, and she had some
- overall responsibility with the
- 13 contracting with the various
- organizations that we work with and with
- the operational side of getting the data
- and collating the data.
- Q. If you look below, Clare had
- sent some slides around. And then she
- 19 asked at least the folks on the e-mail --
- it doesn't look like you are on the
- e-mail. "Check the accuracy of the
- slides and the pharmacokinetic section of
- the White Paper of this most recent
- ²⁴ draft." And then --

- A. Excuse me.
- Q. Bless you.
- And then it looks like the
- ⁴ ALZA individual writes, and includes you
- on it, to Dr. Vorsanger and also Clare
- 6 Harte that there were some comments on
- ⁷ the White Paper. Number one, "The heat
- 8 study that showed no major difference
- 9 between the two formulations is basically
- being ignored."
- And I'm trying to understand
- what that means. Did the heat study data
- show that there was not a difference with
- 14 respect to release between the reservoir
- and the matrix patch?
- A. I don't recall. I'd have to
- 17 go back to the studies.
- Q. And then do you recall any
- issue concerning where to put the patch
- with respect to delivery of the drug?
- A. There are quidelines in the
- package insert about where to put the
- ²³ drug and how to rotate the attachment
- site.

- Q. Have you ever heard about a
- difference between putting it on the arm
- versus the back versus the chest?
- ⁴ A. There were potentially
- ⁵ differences because of blood flow in the
- 6 area that could lead to slight
- ⁷ differences in the absorption of the
- 8 fentanyl.
- 9 Q. Do you know -- it says here,
- "We can speculate such a difference would
- 11 not show up for the reservoir, but we
- don't have data."
- Do you know if any data was
- ever collected with respect to whether
- there would be a difference with respect
- to drug delivery between the arm, the
- back, or the chest?
- A. I don't recall.
- Q. Let's take a look at the
- White Paper itself.
- MR. LIFLAND: For the
- record, this is 25?
- MS. CONROY: This is
- Exhibit 25. That's right.

- ¹ BY MS. CONROY:
- O. So the title of this is
- ³ "Transdermal Fentanyl Systems," which at
- 4 this time would be the reservoir with the
- ⁵ protective rate-controlled membrane and
- 6 the matrix that did not have a
- ⁷ rate-controlling membrane, correct?
- 8 A. It would be the reservoir
- 9 and hypothetical matrix systems. There
- was nothing marketed at the time.
- 11 Q. Well, there was a matrix
- 12 system marketed in Europe?
- A. Correct. But the studies
- that were done in here, we didn't have
- 15 access to the matrix product that would
- be marketed in the United States.
- Q. So what did you --
- A. We used the product that was
- ¹⁹ available in Europe.
- Q. So you used the Janssen
- matrix for these studies? So you
- compared the Janssen matrix to the
- Janssen reservoir?
- A. Yes.

- Q. And it was your
- ² understanding, at least, that the Janssen
- matrix that you used for these studies
- 4 was equivalent to what you expected to be
- 5 sold as a matrix product in the United
- 6 States?
- A. Ultimately there were very
- 8 minor differences, because I believe that
- ⁹ the pharmacokinetics studies that showed
- bioequivalence, there was an
- intermediate -- I'm not certain. I think
- there were minor differences in the patch
- that we ultimately brought to market, the
- matrix patch that we ultimately brought
- to market from the matrix patch that was
- marketed at this time in Europe. But I
- don't know the specifics of it.
- Q. What do you know about that?
- Was -- was there an attempt to make the
- U.S. Janssen matrix patch somehow
- different than the European Janssen
- matrix patch?
- A. I don't recall that there
- was any attempt to. It may have been

- 1 related to excipients. But I don't
- ² recall. I have a vague recollection that
- we couldn't simply manufacture identical
- 4 matrix patch in the United States to what
- was being marketed in Europe, and that
- 6 there were -- there was a bioequivalency
- ⁷ study that looked at an intermediate
- 8 product, and that to the one in the
- ⁹ United States.
- My recollection of that is
- 11 really vague because it was all done
- within the formulations group.
- Q. When you say an intermediate
- product, where was -- is that a U.S.
- intermediate product?
- A. Again, I don't know the
- steps.
- Q. Okay. Do you know if there
- was ever a bioequivalency test performed
- at any time between the Janssen European
- matrix and the Janssen U.S. matrix when
- they were both on the market?
- A. Yes. Again I have a vague
- ²⁴ recollection that there was a

- bioequivalency study done between the
- ² marketed matrix product in Europe to a
- matrix product to be marketed in the U.S.
- and then a subsequent study between the
- 5 matrix product to be marketed in the
- ⁶ U.S., which was bioequivalent to the
- ⁷ European matrix. And that product to the
- 8 U.S. reservoir. Again, I don't have -- I
- 9 don't have enough recollection of that
- because most of the work was done in the
- 11 formulations group.
- Q. Is it your understanding
- that the European matrix patch was
- bioequivalent to the Janssen matrix patch
- in the U.S.?
- A. Yes.
- O. The remainder of the title
- here is, "Reduced safety and increased
- 19 societal risk of matrix patch
- ²⁰ formulations."
- Would that include the
- matrix patch formulations in Europe?
- A. These were hypothetical and
- in some cases, you know -- based upon

- data that we generated over the course of
- late 2003, 2004, that led us to believe
- 3 that there were different risks
- 4 potentially reducing the safety of a
- 5 matrix patch relative to the reservoir
- 6 patch in the context of the U.S.
- ⁷ environment.
- ⁸ Q. Right. The patches were the
- 9 same, it was the patients that were
- different; is that correct?
- 11 A. Or how it was used or how it
- might be diverted and misused.
- Q. But the patches are the
- 14 same?
- A. The patches --
- Q. The matrix patch in Europe
- 17 is the same --
- A. -- as the matrix patch that
- we used as a testing mechanism, where
- we -- where we used the matrix patch. In
- the studies of attractiveness, it was a
- description.
- Q. This front sheet has
- Mudskipper Strategies. That's

- ¹ Dr. Allcorn that we spoke about earlier,
- ² correct?
- ³ A. Who is the principal of
- 4 Mudskipper, yes.
- ⁵ Q. And you read through this
- 6 draft White Paper Exhibit 25, correct?
- ⁷ A. Yes.
- 8 Q. Carefully, correct?
- ⁹ A. Yes.
- Q. If we turn to Page 11, over
- into the next page, but it states here,
- "We believe" -- "we" is Janssen, correct?
- A. Janssen, ALZA, yes. And
- certainly from -- with respect to
- 15 reservoir and our assessment. Let's say
- ¹⁶ Janssen.
- ¹⁷ Q. Okay.
- -- "taken together, this
- information" -- which the information is
- the comparison between the reservoir
- patch and the matrix patch, correct?
- A. Yes. And in another
- instance also relative to other
- extended-release, other opioids.

```
Q. -- "demonstrates not only
```

- that Duragesic" -- and that means the
- ³ reservoir patch, right?
- ⁴ A. Yes.
- ⁵ Q. -- "and fentanyl matrix
- 6 patches are not interchangeable in the
- 7 clinical setting but that matrix patches
- present an unacceptable risk" --
- 9 "additional risk both to patient safety
- and public health in the United States."
- Do you see that?
- A. Yes.
- Q. And do you still agree with
- 14 that statement?
- A. We subsequently developed
- data to show that the concerns we had at
- this time didn't materialize. So I would
- say that no, I no longer believe that.
- Q. Okay. What data did you
- ²⁰ prepare or collect?
- A. You are talking about
- subsequent?
- Q. Yes, that made you abandon
- this.

- A. So as part of our commitment
- to the Food and Drug Administration, we
- 3 continued to market the reservoir in the
- ⁴ United States, even after there was a
- ⁵ generic matrix fentanyl patch that came
- 6 to market.
- As part of our commitment,
- ⁸ we had in place a number of surveillance
- 9 systems, some of which we spoke about
- 10 yesterday, DAWN, the key informant
- 11 network, examination of internet
- websites, laboratory assessments. And we
- monitored that for several years.
- 14 At one point the FDA
- 15 requested that we shift from our
- 16 reservoir patch to a matrix patch. And
- we contended at the time that we had the
- same concerns that we brought to the
- 19 FDA's attention in the Citizen's Petition
- that we filed in 2004.
- We at that time said to the
- FDA, Well, okay, now we have several
- years of data available to us from our
- surveillance program, which to a great

```
degree was able to differentiate between
1
    the marketed matrix on the -- in the
2
    United States and the reservoir patch,
    and when we evaluated those data, we
5
    concluded that the concerns we had about
6
    increased risks of --
7
                  (Brief interruption.)
8
                  THE WITNESS: I'm sorry.
9
                  -- increased risks for
10
           abuse, misuse and diversion had
11
           not materialized, and, therefore,
12
           we felt comfortable in moving
13
           ahead with the FDA's request that
14
           we shift our own Duragesic
15
           reservoir patch to a matrix patch
16
           in the United States.
17
    BY MS. CONROY:
18
           Q. So you became comfortable
19
    that there was no increased risk of
20
    diversion with respect to the matrix
21
    versus the reservoir, correct?
22
                 We had surveillance data
           Α.
23
    that did not show an increased risk for
24
    abuse, misuse and diversion with the
```

- ¹ matrix patch.
- O. Correct. And then at one
- point only the matrix patch is available
- 4 for sale in the United States with, you
- ⁵ know, with controlled substance?
- A. I -- it was my understanding
- ⁷ that there was another generic patch for
- ⁸ a time that was a reservoir patch, but at
- 9 some point they moved from that as well.
- We weren't the only reservoir patch on
- the market, but I don't recall the timing
- 12 for their switch either.
- Q. But at some point Janssen
- switched and only sold the matrix patch,
- no longer sold the reservoir patch?
- A. That's correct.
- 0. What studies indicated to
- you that the matrix patch, after the
- reservoir was no longer being sold, was
- not attractive to abusers?
- A. We had surveillance data,
- the surveillance mechanisms that we had
- put in place in 2005 as part of our risk
- management program that looked at DAWN

1 data, that looked at internet monitoring 2 data, that looked at the NFLIS data around laboratories, and it did not show a difference in rates of abuse, misuse 5 and diversion between the matrix patch 6 and the reservoir patch. 7 That -- that wasn't actually Ο. 8 my question. 9 My question is what data 10 showed you that there was not abuse and 11 diversion with the matrix patch that was 12 being sold by Janssen in the United 13 States. 14 MR. LIFLAND: Object to the 15 form of the question. 16 THE WITNESS: And -- so we 17 had data that showed there was no 18 difference in rates of abuse, 19 misuse and diversion. All of the 2.0 surveillance showed a small degree 21 of abuse, misuse, diversion 22 adverse events, but we were 23 concerned about potential

differences between the two and

2.4

- those didn't materialize based
- ² upon our surveillance.
- 3 BY MS. CONROY:
- ⁴ O. And -- and I understand
- 5 that, and if you take a look at Page 11,
- the statement is, "Matrix patches present
- ⁷ an unacceptable additional risk both to
- 8 patient safety and public health in the
- ⁹ United States."
- What changed about the
- 11 matrix patch that made it not an
- unacceptable additional risk to patients
- in the U.S.?
- A. Perhaps nothing. At the
- time that we did this report, it was all
- based upon hypothetical data. There was
- no matrix patch that was available in the
- ¹⁸ United States.
- So all of the studies that
- we did through 2003 and 2004 looked at
- 21 hypothetical risks associated with the
- ²² matrix patch.
- The FDA nonetheless approved
- ²⁴ a generic matrix patch. They responded

- to our Citizen's Petition and justified
- why they were moving ahead with approving
- a matrix formulation of -- of transdermal
- ⁴ fentanyl. And we did not at the time
- ⁵ switch.
- But because of the
- ⁷ hypothetical concerns that we learned of
- 8 during the course of our studies, we
- ⁹ continued to monitor for those
- differences. And our -- at this time, we
- were concerned that introducing a matrix
- 12 formulation would lead to increases in
- 13 additional risks to the patient
- population or to the public health by
- virtue of differences in diversion and
- abuse, but they didn't materialize.
- Q. So what you don't agree with
- any longer on Page 11 is the reservoir
- and the fentanyl matrix patches may be,
- in your estimation, they are
- interchangeable?
- A. That the risks that we -- we
- 23 knew that pharmacokinetically they were
- equivalent. But we were concerned about

- other risks associated with misuse, abuse
- ² and diversion. They didn't materialize.
- ³ And until we convinced ourselves that the
- 4 risks that we were concerned about when
- we did the early studies with the
- 6 hypothetical matrix in the United States,
- ⁷ it didn't materialize. And therefore, we
- 8 felt comfortable moving, per the FDA's
- 9 request, in switching from our Duragesic
- reservoir patch to a matrix patch.
- O. So those risks cease to
- 12 exist with the matrix --
- 13 A. They never -- they never
- ¹⁴ materialized.
- Q. So they --
- A. And I won't say they ceased
- to risk. There were risks associated
- with the reservoir patch and with the
- matrix patch. We were looking at whether
- there were significant differences in
- those risks. Differences in rates of
- those risks. We did not see a difference
- in the rates of those risks.
- Q. But you saw no decrease in

- the rates with respect to the matrix
- ² patch?
- A. I believe our conclusion was
- 4 that there was -- that once we reviewed
- ⁵ the surveillance data, that we concluded
- that there was no additional risk.
- ⁷ Q. Was there an issue with the
- 8 data with the ability to differentiate
- ⁹ between the reservoir patch and the
- matrix patch?
- A. My understanding is
- initially there was and we worked with
- the colleagues who did the surveillance
- 14 program because we pushed them to the
- extent possible to differentiate between
- the -- the generic matrix patch and the
- branded reservoir patch.
- Q. And approximately how many
- months were both on the market in the
- ²⁰ U.S.?
- A. Before we switched to a
- matrix patch?
- Q. Correct.
- A. May I go back to see exactly

- when we brought the matrix patch?
- Okay. So in 2009 we -- we
- brought the matrix patch. Sometime
- 4 before that the FDA requested that we
- ⁵ switch from the reservoir patch. But
- 6 certainly between 2005 and 2009 the
- ⁷ matrix patch in a generic formulation was
- 8 available in the United States. So we
- 9 would have had data on several years of
- ¹⁰ surveillance.
- Q. And the FDA, as you state,
- 12 requested a change from the reservoir
- patch to the matrix patch because of two
- 14 recalls for leaking fentanyl from the
- 15 reservoir patch?
- A. Because of manufacturing
- issues associated with the Duragesic
- reservoir patch, that's correct.
- Q. Did your analysis of the
- data from 2005 to 2009 show any
- differences in the manner of diversion
- that you studied in this White Paper, the
- ²³ attractiveness or the extractability?
- A. Well, it wouldn't show

- differences in extractability. That's a
- laboratory control. The differences we
- saw in extractability led us to believe
- 4 that there might be differences in the
- ⁵ real world availability of the two. But,
- in fact, in the surveillance systems we
- ⁷ put in place, we didn't see the
- 8 additional risks associated with
- 9 differences in -- in availability under
- those conditions.
- 11 Q. Did you still see in that
- data support for the attractiveness of
- the matrix patch?
- 14 A. Based upon the surveillance
- systems we had in place, we didn't see
- that the matrix patch was being abused,
- misused, or diverted at a rate
- substantially different from the
- 19 reservoir patch.
- Q. I understand that, but did
- you see any difference with respect to
- the attractability of the matrix patch to
- abusers? And I'm -- I'm not talking
- about in comparison with the reservoir

patch. I'm just talking about whether or 1 not your hypothesis about why the matrix 2 patch would be attractive to abusers held up when you looked at the data. Well, we --5 Α. 6 MR. LIFLAND: Object to the 7 form of the question. THE WITNESS: We didn't 8 9 measure attractiveness. 10 Attractiveness was a measure in 11 the studies of whether a drug was 12 more attractive. If a drug was 13 more attractive, then 14 theoretically that drug would be 15 sought more so than a comparator 16 drug, whether that be Duragesic 17 reservoir or another 18 extended-release opioid. 19 So although we didn't 20 surveil for attractiveness, we --21 our surveillance was able to pick 22 up measures of abuse, misuse, and 23 diversion. 2.4 In those measures, we didn't

```
see a significant difference
1
2
           between the two formulations.
                                            Tt.
3
           doesn't say that the matrix patch
           is or is not more attractive.
5
           Within the environment of the
6
           United States, it may -- it may be
7
           that availability of other drugs
           that are far more attractive
8
9
           overrides the concerns between
10
           differences in the reservoir or
11
           matrix patch.
12
                  We simply didn't see
           differences in rates of abuse,
13
14
           misuse and diversion. We didn't
15
           measure attractiveness in any
16
           surveillance system.
17
    BY MS. CONROY:
18
                 Do you know if the street
19
    value of the matrix patch changed at all
20
    from your evaluation? And it's on Page
21
    61 of the White Paper.
22
                  I don't know.
           Α.
23
                  Then if you -- there's a --
    you'll see there are calculations on the
24
```

- value of a cut matrix patch. Do you know
- ² if there were any --
- A. I'm sorry. I'm afraid --
- 4 what page are you on?
- o. 61 and 62.
- A. Okay.
- 7 Q. 61, you see, at the top --
- 8 it talks about the -- 60 -- Page 62, the
- 9 economics of diversion of fentanyl matrix
- ¹⁰ patches?
- A. Somehow we're not looking --
- this is my Page 62.
- Q. Yeah. Go page 61.
- A. Okay. Okay. That's under
- 15 section 6.2.2.2?
- 0. Yes. So take --
- 17 A. Okay.
- Q. Take -- it says, "Economics
- ¹⁹ of" --
- ²⁰ A. Yep.
- Q. -- "diversion of fentanyl
- 22 matrix patches."
- A. Yes. Okay.
- Q. Okay. And then it talks

- about the number of units that could be
- ² cut?
- ³ A. Yes.
- Q. Was there anything -- was
- 5 there any data that was ever collected
- 6 that indicated that that did not continue
- ⁷ to be true about the matrix patch?
- 8 A. No. We -- all of these data
- ⁹ were hypothetical. We didn't collect
- data on the street value of a matrix
- patch of fentanyl. We collected data on
- 12 actual abuse, misuse and diversion.
- Q. Was there anything that
- indicated there was not still abuse,
- misuse and diversion of the matrix patch
- in the data that you reviewed?
- A. No. We continued to see
- measures of -- and rates of abuse, misuse
- and diversion for both the Duragesic
- reservoir patch and the matrix patch, but
- we didn't see substantial differences
- between the two.
- Q. If you look on Page 84,
- Number 6 here, "Availability of a

- fentanyl matrix patch is likely to
- increase the diversion of patches with
- major" -- "with major public health
- 4 consequences for expansion of the current
- 5 market for illicit fentanyl and the
- 6 creation of new markets for illicit
- ⁷ fentanyl use."
- 8 Do you see that?
- ⁹ A. Yes.
- Q. Any reason to believe that
- 11 that -- that statement or statements are
- not -- do not continue to be true?
- A. Again, just in terms of the
- surveillance that we had in place to
- monitor for abuse, misuse and diversion,
- we did not see differences between the
- matrix patch and the reservoir patch.
- Fentanyl continues to be a
- potent Schedule II opioid that's sought
- by drug abusers, and that was true after
- the matrix was introduced and at the time
- that Duragesic was on the market. But we
- didn't see differences when we did our
- surveillance program. We continued to

- see use of illicitly obtained fentanyl,
- but couldn't directly attribute that to a
- matrix patch or a reservoir patch.
- Q. Did you -- when you reviewed
- 5 the data after 2004 when this was
- ⁶ prepared, did you see that the
- ⁷ availability of a matrix patch increased
- 8 diversion activity --
- 9 A. No, we --
- Q. Did you see an increase in
- 11 diversion?
- 12 A. The systems we had in place
- monitored for abuse, misuse and
- diversion. We didn't see differences in
- 15 rates of diversion between the matrix
- patch and the reservoir patch.
- Q. That's not my question.
- A. I understand. So we weren't
- monitoring for expansion of the market
- for illicit products. We -- the
- surveillance mechanisms did pick up that
- there was fentanyl that was abused,
- misused, and diverted that was illicitly
- obtained fentanyl. And we knew that

illicitly obtained fentanyl was sought 1 2 after. 3 But where we had surveillance data specifically for the 5 matrix and the reservoir, we didn't see 6 differences between those two. Yes, we 7 knew that illicitly obtained fentanyl 8 increased over time. 9 So this -- this ended up 10 being true, Number 6, that the 11 availability of the matrix patch 12 increased the diversion of patches if you 13 saw in your data that there was increased 14 diversion of illicit fentanyl? 15 MR. LIFLAND: Object to the 16 form of the question. 17 THE WITNESS: You can't 18 correlate -- you can't show cause 19 and effect between availability of 20 pharmaceutical grade Duragesic, 21 whether it's in a matrix patch or 22 a reservoir patch, to the use of 23 illicitly obtained fentanyl. That 24 may relate to lots of other

```
1
           potential contributing factors,
2
           such as availability of heroin on
3
           the market or availability of
           other products that are laced with
5
           a very potent formulation of
6
           fentanyl. So we could not
7
           conclude anything between the
8
           availability of pharmaceutical
9
           grade fentanyl as a matrix patch
10
           or a reservoir patch and the use
11
           of illicitly obtained fentanyl.
    BY MS. CONROY:
12
13
                  If you couldn't determine
14
    whether there was diversion of pharma
15
    grade fentanyl versus illicit fentanyl,
16
    how could you make the determination that
17
    there was not a distinction between the
18
    reservoir matrix -- the reservoir and the
19
    matrix --
20
           Α.
                 Because --
21
                 -- if you can't
           0.
22
    differentiate pharma grade?
23
                 MR. LIFLAND: Object to the
24
           form of the question.
```

1 THE WITNESS: Because in 2 some of the surveillance programs, 3 they would report to us if they discovered that it was Duragesic 5 or the Mylan early on, and other 6 generic formulations of 7 pharmaceutical grade patches. 8 They had the ability to 9 report to us if there was 10 diversion of those systems, or if 11 those systems were in use. 12 So based upon those 13 surveillance programs where they 14 were able to differentiate the 15 product that was being abused, 16 misused, and diverted, we didn't 17 see a difference between the two 18 formulations. 19 BY MS. CONROY: 20 And using those same Ο. 21 programs, were you able to determine 22 whether or not pharma grade -- the diversion of pharma grade fentanyl was 23 24 increasing over time up until 2009?

- 1 A. I'd have to go back to the
- ² reports. It's my understanding that
- there were increases over time of abuse,
- 4 misuse and diversion for formulations of
- Duragesic. And that's what we warned
- 6 against. That's why we strengthened our
- ⁷ package insert over time, because of the
- 8 concerns with increasing use of strong
- ⁹ opioids and the issues around abuse,
- misuse and diversion.
- Q. Correct. And so this --
- what you talked about in 2004 apparently
- was reflected in the data in 2009, that
- the availability of a fentanyl matrix
- patch is likely to increase the diversion
- of patches?
- MR. LIFLAND: Object to the
- form of the question.
- 19 BY MS. CONROY:
- Q. You saw that?
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: I disagree
- that you're showing that by virtue

1 of making a matrix patch 2 available, that that led to the 3 increase in expansion of the market for illicit fentanyl. There's no cause and effect there. 5 6 That's as if saying that had 7 there never been a matrix 8 formulation brought to market, if 9 the Duragesic reservoir patch 10 remained on the market, we would 11 not see any increase in illicit 12 fentanyl use. I can't say that that would have been the case. I 13 14 can only say that when a matrix 15 formulation of Duragesic, when it 16 was introduced to the market, we 17 didn't see differences between the 18 two. 19 BY MS. CONROY: 20 I know. But you did say 0. 21 this, you did say that there would be a 22 likely increase in the diversion of 23 patches once the fentanyl matrix patch 24 was available.

```
1
                  That was our --
           Α.
2
                  MR. LIFLAND: Object to the
3
           form of the question.
                  THE WITNESS: That was our
5
           hypothetical concern based upon
6
           the attractiveness scale and
7
           the -- and the knowledge we had
8
           that you could cut a matrix patch
9
           more readily than you could a
10
           reservoir patch.
11
    BY MS. CONROY:
12
                 And you did see data in 2009
13
    that there was an increased diversion of
14
    pharma grade fentanyl?
15
                  Yes, but I can't attribute
           Α.
16
    that to availability of a matrix patch.
17
                 Because it hasn't been
           Ο.
18
    tested, correct?
19
                  MR. LIFLAND: Object to the
20
           form of the question.
21
                  THE WITNESS: Illicitly
22
           obtained fentanyl would be very
23
           difficult to test. We don't know
24
           where the drug is coming from.
```

1	And in many instances, it's
2	co-mixed with heroin and other
3	drugs of abuse. I'm not sure how
4	you would test that the
5	availability of pharmaceutical
6	grade fentanyl would lead to an
7	increase in illicitly used
8	fentanyl.
9	BY MS. CONROY:
10	Q. Apparently Mudskipper
11	thought they could figure that out.
12	MR. LIFLAND: Object to the
13	form of the question.
14	THE WITNESS: Well,
15	Mudskipper didn't figure it out.
16	We were talking about their simply
17	summarizing the data.
18	Based upon what we knew of
19	the matrix formulation and other
20	studies we did, such as the
21	attractiveness, there was a
22	hypothetical risk that individuals
23	who were interested in abusing,
24	misusing or diverting opioid

1	medications, including the
2	Duragesic patch or matrix, would
3	find the matrix patch to be more
4	attractive for abuse, misuse and
5	diversion.
6	If they had access to if
7	they wanted a fentanyl product and
8	had access to other fentanyl, such
9	as illicitly obtained fentanyl,
10	perhaps they would go there.
11	I can't make a direct
12	correlation between pharmaceutical
13	grade fentanyl and illicitly
14	obtained fentanyl.
15	I can only speak to what we
16	studied here which was whether
17	there were potential differences
18	between these two formulations.
19	We, in our studies, found
20	potential differences that
21	informed our conclusion that there
22	may be risks associated with the
23	matrix that were going to be
24	greater than risks associated with

- the reservoir patch. And we
- brought those concerns to the FDA
- in our Citizen's Petition.
- ⁴ BY MS. CONROY:
- ⁵ Q. To date, are you aware of
- 6 any studies sponsored by Janssen that the
- ⁷ matrix patch has not increased the
- 8 diversion of patches?
- 9 MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: No.
- 12 BY MS. CONROY:
- Q. Turn to Page 90. Do you see
- where it says, "The parallels between
- OxyContin" -- and that's a
- controlled-release pill, correct?
- A. Controlled-release pill that
- delivers Oxycodone.
- Q. -- "and the Mylan patch are
- clear."
- Were -- were there studies
- done that compared the Mylan patch to
- 23 OxyContin?
- A. Not to my knowledge.

- O. And Janssen did not have a
- ² Mylan matrix -- matrix patch to test at
- this time; is that correct?
- ⁴ A. That's correct.
- ⁵ Q. Do you know if that testing
- was ever done, a comparison between
- ⁷ OxyContin and the Mylan matrix patch at
- ⁸ Janssen?
- ⁹ A. For what reason? When we
- talk about parallels, we are not talking
- about a clinical trial, we're talking
- 12 about a hypothetical understanding of
- Oxycodone and extended-release Oxycodone,
- what was known about OxyContin and what
- was known about Duragesic and the data
- that we generated through our studies on
- ¹⁷ a hypothetical patch, that we expected
- would be coming to market in the 2005
- 19 time frame.
- Q. Do you know if there were
- ever any clinical studies or trials that
- compared OxyContin to the Janssen matrix
- patch?
- A. There were not.

```
Q. Do you know if there were
```

- any done comparing the economics of the
- patch, not the -- not the safety of the
- ⁴ patch, the bioequivalency of the patches,
- 5 patch to the -- to the OxyContin pill?
- 6 A. Could you -- I'm sorry, I'm
- ⁷ not understanding. When you say the
- 8 economics, you are talking about the
- 9 street value?
- Q. Oh, no, I'm not. I'm sorry.
- A. Okay.
- Q. We talked yesterday, there
- was -- we saw some studies between using
- OxyContin versus a fentanyl patch, and
- the -- and the effectiveness over time
- and how much it would cost, the economics
- of one pain treatment versus another.
- ¹⁸ A. Okay.
- Q. Do you know -- so, I think
- you've told me there were no studies
- between the OxyContin -- between
- OxyContin pills or whatever, and any
- Janssen products with respect to safety
- or diversion; is that correct?

- A. With respect to diversion,
- we had studies that compared OxyContin
- and fentanyl, FEN-USA-71 and 72. So we
- 4 had safety data. But not data with
- ⁵ respect to misuse, abuse and diversion.
- ⁶ Those data were available to us through
- ⁷ the surveillance mechanisms that we had
- ⁸ in place.
- ⁹ Q. Do you know if Janssen ever
- conducted economic studies, and I'm
- 11 talking about maybe the value to a
- 12 formulary, or the value to a particular
- patient population that compared
- OxyContin to a matrix patch, you know,
- made by Janssen?
- A. And that would be after
- 17 2009, so my answer would be no.
- Q. You are not -- you -- at
- least you're not aware from 2009 to 2011?
- A. That's correct.
- Q. And do you know, are you
- aware of anything, have you heard
- ²³ anything after 2011?
- A. No, I haven't.

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Q. You can put that one away.
```

- ² (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-24)
- 5 BY MS. CONROY:
- O. The next exhibit is the
- ⁷ Citizen's Petition, Exhibit 24. That is
- ⁸ JAN-MS-02508937 through 48.
- And you've -- you've talked
- about the Citizen's Petition a bit today.
- 11 Is this the actual document?
- A. Yes.
- O. And -- and ALZA filed the
- 14 Citizen's Petition?
- A. Yes.
- Q. And although -- was -- ALZA
- was a part of Janssen at this time,
- ¹⁸ November 12, 2004?
- A. ALZA continued to
- manufacture the Duragesic reservoir and
- Janssen was responsible for sales and
- marketing. I don't recall the exact
- companywide relationship between the two.
- They continued to manufacture, sales and

- ¹ marketing was the responsibility of
- ² Janssen.
- Q. Is it fair to say that if
- 4 Janssen had not wanted the Citizen's
- 5 Petition to be filed, they could have
- stopped it?
- ⁷ A. Yes.
- ⁸ Q. And can you describe for me
- 9 what a Citizen's Petition is?
- A. A Citizen's Petition gives
- the opportunity for any interested party
- in submitting a request to the FDA based
- upon data that asks the FDA to take
- certain actions. It may be changes in
- the labeling, it may be additional
- studies. It's asking the FDA to take
- 17 action relative to a certain compound.
- Q. And -- and what was being
- 19 asked in this context was that the FDA
- would require anyone that was
- manufacturing a fentanyl matrix system to
- develop and implement a comprehensive
- risk minimization program. Do you see
- that?

```
1
           Α.
                 Yes.
2
                  Is that the same as -- as a
           Q.
    risk management plan or -- or is a risk
    minimization program something different?
                 At -- at this time the FDA
5
           Α.
6
    was on the road towards developing risk
7
    management plans, risk minimization and
8
    assessment plans. But plans that would
9
    be able to track known risks and assess
10
    the frequency with which they are seen.
11
                 And then ALZA, Janssen, also
12
    requested that the FDA classify matrix
13
    and reservoir fentanyl transdermal system
14
    as well as products with and without
15
    rate-controlling membranes as different
16
    dosage forms that are not pharmaceutical
17
    equivalents. Do you see that?
18
           Α.
                 Yes.
19
                 And can you explain what was
20
    meant by requesting that the products not
21
    be pharmaceutical equivalents?
22
                  So in a comparator way, the
           Α.
23
    FDA does not consider tablets and
```

capsules to be pharmaceutically

24

- 1 equivalent, even if they deliver the same
- amount of the active drug over the same
- ³ period of time.
- 4 So the FDA already had
- ⁵ quidelines under which they might
- 6 classify the two as being bioequivalent,
- but not pharmaceutically equivalent.
- 8 That relates to interchangeability at the
- 9 level of the pharmacy. In some states at
- the time, if you write for the active
- compound, then the -- the pharmacy can
- 12 fill that with what the FDA would
- designate as pharmaceutically equivalent.
- So going back to my
- original, if you wrote for a capsule, you
- 16 could not substitute a tablet.
- Q. And so you were asking the
- FDA that if -- if a physician prescribed
- 19 a reservoir matrix, that that would not
- 20 be able to be --
- A. That you couldn't -- that
- you couldn't fill that prescription with
- ²³ a fentanyl matrix patch.
- Q. And in support of your

- 1 request, you see you talk about the
- differences in the abuse liability and
- 3 drug delivery systems between the
- ⁴ reservoir and the matrix, correct?
- ⁵ A. Yes. There are the outcome
- of the data that we generated over the
- ⁷ previous year and a half.
- ⁸ Q. And what happened with the
- ⁹ Citizen's Petition?
- A. Well, the FDA took it under
- 11 advisement. Ultimately they -- they
- 12 rejected the Citizen's Petition.
- Q. And after that rejection,
- Janssen then moved for an approval of a
- matrix formulation, matrix fentanyl
- delivery system formulation?
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: Yes, after.
- But years later.
- We continued to market the
- Duragesic as a reservoir fentanyl
- patch until 2009.
- This was -- the rejection

```
came in January 2005. But we continued to market the reservoir
```

- patch through 2009 because of
- 4 concerns over what we had brought
- forth in the studies that we did.
- 6 BY MS. CONROY:
- O. And is the Citizen's
- 8 Petition based on the data that was in
- ⁹ the White Paper?
- A. Yes.
- Q. And in 2009 Janssen decided
- to go forward with the matrix formulation
- because of the review of the diversion
- 14 data in the --
- A. All -- I'm sorry.
- Q. -- in the surveys?
- A. All of the surveillance
- data, that's correct.
- Q. Had you ever filed a
- ²⁰ Citizen's Petition prior to 2004 for any
- ²¹ reason?
- A. Janssen had. I had not.
- Q. Had you ever done it
- subsequent to 2004?

```
A. No.
```

- Q. You can put that away.
- 3 (Document marked for
- 4 identification as Exhibit
- Janssen-Moskovitz-27.)
- 6 BY MS. CONROY:
- 7 O. That is Exhibit 27. An
- 8 e-mail from -- well the top e-mail is
- ⁹ from you and it's dated March 24th of
- ¹⁰ 2008. And the Bates range is
- ¹¹ JAN-MS-02005184 to 185.
- The subject is "The
- Duragesic Development Plan For a Matrix
- 14 Patch." If you look at the bottom of
- the -- of Exhibit 27, the first page,
- there's an e-mail from Ravi Desiraju --
- A. Desiraju.
- Q. -- Desiraju. And who is
- 19 that?
- A. He was on -- I believe he
- was on the sales and marketing side or
- PGSM. He was not on the research side.
- Q. Okay. And I see you are --
- you are one of the recipients.

- A. Of Ravi Desiraju's e-mail.
- Q. Correct. And I'm just
- ³ looking at who else. Scott Trembley,
- 4 he's in medical affairs at that point,
- ⁵ correct?
- A. No. He's on the sales and
- ⁷ marketing side.
- Okay. Karen Naim, where is
- 9 she from?
- A. BRM is the benefit-risk
- management, U.S., so that was the safety
- 12 group.
- Q. Randolph, William Randolph,
- what's that group?
- A. I believe that relates to
- the manufacturing. I'm not certain.
- 17 It's not sales and marketing. It's not
- medical affairs.
- Q. Okay. And Carolyn Gerhardt.
- What department is she in?
- A. PRD would be the R&D side,
- the research and development side.
- Q. And Donna Abbondanza?
- A. I believe she was

- 1 regulatory. I'm not certain. But I
- ² believe she was regulatory.
- ³ Q. And Harindra Abeysinghe.
- ⁴ She is after Carolyn Gerhardt.
- ⁵ A. That's a he. He was
- ⁶ regulatory.
- ⁷ Q. Okay. Todd Moore.
- 8 A. Not certain.
- ⁹ Q. Okay. Henry Richards?
- 10 A. He was a physician, and I
- believe -- he had a variety of positions
- through the course of my time at Janssen.
- 13 At times he reported to me. I believe at
- this time he looked at some of the safety
- issues. But I can't say that for
- 16 certain.
- Q. Okay. Did you say Ravi is a
- man, right?
- A. Yes.
- Q. So Mr. Desiraju, is he a
- 21 physician or --
- A. No. He is a pharmacist. I
- believe that's his background.
- Q. He writes to the team, "As

- you may know, during a teleconference
- with the FDA on Friday" -- and he's
- writing this e-mail on a Sunday -- "they
- 4 strongly recommended that we proceed ASAP
- ⁵ with the development and launch of a
- 6 matrix formulation for Duragesic and
- ⁷ replace the reservoir formulation with
- 8 the matrix."
- 9 Do you see that?
- A. Yes.
- Q. And he asked people to be
- 12 ready to meet tomorrow to discuss the
- elements of a development plan, do you
- 14 see that?
- A. Yes.
- Q. And then he also says he is
- going to check to see if some patches can
- be brought in from the EU and used in the
- ¹⁹ United States.
- Do you see that?
- ²¹ A. Yes.
- Q. Do you know if that ever
- happened?
- A. I think that goes to what

- ¹ I -- my recollection earlier, that to do
- the bioequivalency studies between the
- matrix that we were marketing in Europe
- 4 and a matrix formulation that was being
- ⁵ developed in the United States, that we
- 6 wanted to have access to the European
- ⁷ matrix so that we could do the
- 8 bioequivalency studies to the matrix that
- 9 would be produced in the United States.
- Q. And I have -- I have your
- 11 response to his e-mail, it looks like you
- 12 kept the same folks on the e-mail chain
- 13 to me.
- A. Probably replied to all.
- Q. Yeah. And it looks like you
- 16 responded the next -- on Monday
- afternoon, but before the call that was
- scheduled.
- A. Yes.
- Q. And you clarify, "The FDA
- 21 did not 'strongly recommend that we
- proceed ASAP with the development and
- launch of a matrix formulation for
- Duragesic and replace the reservoir

- formulation with the matrix.'"
- And then you said, "If that
- were the case there would be no need for
- 4 RADARS to update the report and for us to
- ⁵ review the findings."
- What did you mean by that?
- A. So our concerns that we
- 8 expressed in the Citizen's Petition based
- 9 upon the studies that were conducted in
- late 2003, 2004 always remained, which is
- why we continued to manufacture the
- ¹² Duragesic reservoir.
- We understood that because
- of the manufacturing issues with the
- Duragesic reservoir, the FDA expressed
- that they would like us to consider
- moving to a matrix formulation.
- But my point in this was
- that while they -- while that was their
- 20 preference and they wanted us to move to
- it, we would need to resolve the issue in
- our own minds whether the concerns we had
- expressed in the Citizen's Petition
- remained the case, whether there were

- instances -- whether there were
- ² differences between the matrix
- ³ formulation and our reservoir formulation
- ⁴ with respect to potential for abuse,
- ⁵ misuse and diversion.
- Q. And now it's March of 2008.
- ⁷ So you still expressed the same concerns
- 8 that you had in the Citizen's Petition
- ⁹ four years later?
- A. Well we -- we didn't -- we
- didn't have data that would allay those
- 12 concerns at this time.
- 0. You didn't have the data or
- you didn't look at the data?
- A. We didn't evaluate the data
- in a consistent manner that compared the
- 17 two.
- Q. So from the time that you
- 19 filed the Citizen's Petition in November
- of 2004 until March of 2008, you had not
- gone back to the data that you had
- 22 available to look to see whether or not
- there was diversion of either the
- reservoir matrix or the -- the reservoir

```
or the matrix?
1
2
                  MR. LIFLAND: Object to the
3
           form of the question.
                  THE WITNESS: I wouldn't
5
           characterize -- we reported in our
6
           surveillance programs any
7
           surveillance program that reported
           on abuse, misuse, diversion of all
8
9
           fentanyl products, and where
10
           possible, we had data for a matrix
11
           patch versus the reservoir patch.
12
                  We didn't do a comprehensive
13
           analysis of the differences
14
           between the two. We reported on
15
           the findings from our surveillance
16
           programs.
17
    BY MS. CONROY:
18
                 But you hadn't evaluated the
19
    difference between the reservoir patch
20
    diversion versus the matrix patch
21
    diversion?
22
                 We reported rates throughout
23
    this period.
24
                  But -- but you had -- you
```

- weren't comparing them, one patch to the
- ² other?
- A. There -- that would be
- 4 correct, we weren't consistently making a
- 5 comparison, we were simply reporting the
- ⁶ rates. Our focus was on our product.
- Our focus was on the Duragesic reservoir
- ⁸ patch.
- ⁹ Q. Which was the subject of the
- sales training program that we looked at,
- that was the -- that was the discussion
- of the differences between the product
- that Janssen was selling, the reservoir
- patch, and the matrix patch being sold by
- 15 Mylan?
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: So the sales
- training was to make the
- representatives aware that there
- was another formulation of the
- fentanyl patch that would be
- coming to market. It had nothing
- to do with any data about

```
1
           comparison between the two.
2
    BY MS. CONROY:
3
           O. It -- that --
4
           Α.
                  There were no data at the
5
    time on rates of abuse, misuse and
6
    diversion that we could even refer to.
7
    These were all hypothetical issues in
8
    2004.
9
                  Correct. But you did
10
    compare the reservoir patch to the matrix
11
    patch and you cited particular situations
12
    that could occur with the matrix patch
13
    that couldn't occur with the reservoir
14
    patch?
15
           Α.
                 We cited --
16
                  MR. LIFLAND: Object to the
17
           form of the question.
                  THE WITNESS: We cited
18
19
           concerns based upon the data that
20
           we generated between 2003 and 2004
21
           that might occur with the
22
           introduce -- introduction of a new
23
           matrix patch to the market.
24
    BY MS. CONROY:
```

1 And -- and Janssen had 2 available to it data that it could have evaluated to determine what was happening in the market between the reservoir patch 5 and the matrix patch, the differences, 6 the comparison with respect to diversion, 7 at least up until March of 2008 that it 8 did not evaluate? 9 MR. LIFLAND: Object to the 10 form of the question. THE WITNESS: I wouldn't 11 12 characterize it as did not 13 evaluate. We -- we were aware of 14 all the data. We were aware of 15 rates of abuse, misuse, and 16 diversion for all of the scheduled 17 products that were reported in the 18 surveillance systems. We didn't 19 do a consistent evaluation to --2.0 to reach a conclusion, were there 21 differences in the rates of abuse, 22 misuse and diversion. We reported 23 those rates on a consistent basis 2.4 as part of our commitment to the

- risk management program and the
- surveillance programs.
- 3 BY MS. CONROY:
- Q. I understand that. But you
- were not reporting an evaluation of the
- 6 differences between diversion of the
- ⁷ reservoir versus the matrix, you were
- ⁸ just reporting the diversion of any type
- ⁹ of patch with fentanyl in it?
- A. And conclusions in those
- 11 reports that the rates of abuse, misuse
- 12 and diversion of all pharmaceutical grade
- 13 fentanyl products was low compared to
- other opioids.
- But your characterization is
- 16 correct, we didn't do a consistent look
- 17 at the matrix patch versus the reservoir
- patch until this time in response to the
- 19 FDA's request that we consider switching
- from the reservoir patch to the matrix
- patch.
- Q. But the sales force did have
- information at this time about the
- differences between the reservoir patch

1 and the matrix patch with respect to 2 abuse and diversion? 3 MR. LIFLAND: Object to the form of the question. 5 THE WITNESS: No, the sales 6 force did not have access to the 7 surveillance data that we 8 generated over the period of time 9 from 2005 to 2009. 10 If you're referring back to 11 the 2004 sales training, we 12 educated them on the physical 13 properties of the -- the two 14 formulations. And, based upon the 15 physical properties, what might 16 occur in a hypothetical case, 17 based upon the data we generated 18 over a period of time. 19 And that was the basis of 20 the Citizen's Petition too. 21 BY MS. CONROY: 22 Correct. But the sale --Ο. 23 there -- there was nothing that went out 24 to the sales force for example, in 2007

```
1
    or 2008 that said, "Our thinking about
2
    this has changed."
3
                  There were -- the sales
    training was still that there were
5
    differences with respect to abuse and
6
    diversion between the reservoir patch and
7
    the matrix patch.
8
                 MR. LIFLAND: Object to the
9
           form of the question.
10
                  THE WITNESS: Well, we -- we
11
           did not share surveillance data
           with the sales force. We -- we
12
13
           educated the sales force in 2004
14
           because there was a new
15
           formulation coming to market.
16
           They couldn't promote regardless.
17
                  So they continued to be
18
           aware that there were other
19
           formulations of pharmaceutical
20
           grade fentanyl, fentanyl patches
21
           on the market, but we didn't share
22
           surveillance data with them. They
23
           did not know rates of abuse,
24
           misuse and diversion. Those were
```

```
1
           reported directly to the FDA.
2
    BY MS. CONROY:
3
                 Well, they could promote the
    reservoir patch during that period,
5
    from --
6
                  MR. LIFLAND: Objection.
7
    BY MS. CONROY:
8
              -- 2004 through 2009 when it
9
    was no longer available?
10
                  MR. LIFLAND: Object to the
11
           form of the question.
12
                  THE WITNESS: They would
13
           promote Duragesic based upon
14
           approved promotional materials.
15
                  Given the package insert
16
           and -- and all of the promotional
17
           materials on the appropriate
18
           selection, dose selection,
19
           monitoring and the patient
20
           education.
21
    BY MS. CONROY:
22
                 And you don't know as you
23
    sit here today whether there are
    promotional -- approved promotional
24
```

- ¹ materials that compare the matrix patch,
- the technology of the matrix patch, to
- the reservoir patch?
- A. I don't know.
- ⁵ Q. It says here, "The FDA made
- 6 clear they would not allow for another
- ⁷ recall of the type we had in 2004 and
- 8 earlier this year."
- I think we spoke about that
- earlier today. They were -- there were
- two recalls for leakage in the Duragesic
- patch, one in 2004, and one maybe January
- of 2008?
- A. It was in that time frame.
- 15 I don't recall the exact dates.
- Q. And then you tell
- Mr. Desiraju that the -- that "while FDA
- indicated they would urge we move to an
- alternative formulation." And then you
- ²⁰ put in parentheses, "Matrix being the
- only viable option at the moment," but
- "the FDA was open to learning more about
- our decisions in 2004" -- and in -- "and
- in 2000 and 2004 to remain with the

- 1 reservoir and to review data that we will
- ² submit for abuse and diversion of the
- ³ reservoir and the matrix."
- Do you see that?
- ⁵ A. Yes.
- Q. And that's what you're
- ⁷ talking about, then you -- at this point
- ⁸ in March of 2008, you are indicating that
- 9 it's time now to go back and take a
- 10 closer look at the surveillance data?
- 11 A. Well, certainly at this
- point we had three years of data so that
- we could also determine trends. Exactly
- 14 right. We -- we had concerns throughout
- this period of time based upon the data
- we generated in 2003 and 2004, and we
- understood that the FDA was concerned
- about the manufacturing issues with the
- Duragesic reservoir and were open to
- moving to a matrix patch, but only after
- we satisfied ourselves and satisfied the
- FDA that the concerns we raised in the
- 23 Citizen's Petition did not come to
- fruition, that we were not seeing an

- increased signal for abuse, misuse,
- diversion in public safety with the
- ³ matrix patch.
- The FDA agreed with us on
- 5 that. They allowed us to do the analysis
- of the surveillance data and submit that.
- Q. And -- and that's what you
- were telling Mr. Desiraju, don't be --
- 9 don't be so hasty, we still have work to
- do here?
- 11 A. I'd agree with that in a
- 12 nutshell, yes.
- Q. And do you know how the
- 14 reservoir, the Duragesic reservoir was
- doing on the market as compared to the
- Mylan patch at that time?
- 17 A. Those data were shared in
- meetings. I couldn't give you the exact
- numbers. As is typical, when a generic
- is introduced to the market, the total
- number of prescriptions -- I'm not
- talking about sales -- the total number
- of prescriptions would increase for
- the -- for the matrix relative to the

- ¹ branded product. And that was my
- ² understanding of what was happening
- with -- with generic formulations,
- 4 because at this time there was more than
- one generic formulation on the market
- ⁶ relative to the Duragesic reservoir
- ⁷ patch.
- 8 Q. And -- and at this time,
- 9 depending on a patient's health
- insurance, I guess, they could be -- a
- patient might receive a matrix
- 12 formulation even if their physician had
- prescribed a reservoir formulation?
- A. I believe that that would
- depend upon a patient's health insurance
- and regulations within the state. There
- 17 are some states that allow
- interchangeability even if a physician
- writes for a branded product. I believe
- there are some states that don't allow
- 21 that.
- MS. CONROY: I think it's a
- good time for a lunch break.
- MR. LIFLAND: Okay.

```
1
                 MS. CONROY: We can go off
2
           the record.
3
                 THE VIDEOGRAPHER: Stand by,
           please. The time is 12:56 p.m.
5
           Going off the record.
6
7
                    (Lunch break.)
8
9
                 THE VIDEOGRAPHER: The time
           is 2:18 p.m. Back on the record.
10
11
12
        AFTERNOON SESSION
13
14
                 EXAMINATION (Cont'd.)
15
16
    BY MS. CONROY:
17
                 Mr. Moskovitz, let me pass
18
    to you Exhibits 28 and 29.
19
                  (Document marked for
20
           identification as Exhibit
21
           Janssen-Moskovitz-28.)
22
                  (Document marked for
23
           identification as Exhibit
24
           Janssen-Moskovitz-29.)
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- ¹ BY MS. CONROY:
- Q. We'll look at 28 first.
- Exhibit 28 is what appears to be another
- slide deck dated April 20, 2007. The
- 5 Bates number is, on the final page,
- ⁶ JAN-MS-02305132. And this -- it's called
- ⁷ the Duragesic Risk Management Overview.
- 8 Do you see that?
- ⁹ A. I do.
- Q. And did you prepare this
- 11 slide deck?
- 12 A. I ultimately presented the
- 13 slide deck. I probably had assistance in
- ¹⁴ preparing it.
- Q. If you just would turn to --
- you know something, I don't -- some of
- them have -- this one does not have page
- ¹⁸ numbers.
- 19 If you go to the very end
- and you go in a few slides, and I'm going
- to show you what I'm looking for. It's a
- map. Go in three -- about four slides.
- Yeah, that's it.
- ²⁴ A. Okay.

- Q. I don't need -- if you need
- to refer to some other section of the
- 3 slide deck, that's fine. But do I
- 4 understand correctly that this was an
- ⁵ indication that you could look at abuse
- 6 and diversion down to a zip code area?
- A. Even without looking at
- 8 this, in a general sense we tried to look
- 9 at issues of abuse and diversion down to
- the zip code level.
- Okay. And is that what that
- is showing, a zip code level? I think I
- 13 read that somewhere else in the slide
- 14 deck. I'm going to look for it here.
- But I see the three -- it's really hard
- 16 to read.
- But do you see there are
- three numbers in this area of Eastern
- 19 Kentucky, right on the border of West
- Virginia, and it looks like you have a
- ²¹ 412, 413, 414, that are in the center of
- those different pink color areas?
- A. Yes. And the -- on the side
- it says rates per three-digit zip code.

```
1
                 MR. LIFLAND: Could you
2
           pause for one second, because I'm
3
           having trouble finding the page.
                 MS. CONROY: Okay. Go to
5
           the very end, probably easy --
6
                 MR. LIFLAND: And I just --
7
           I would tell the witness, if you
8
           would like to just flip through,
9
           just so you understand the context
           of all of this, feel free. But
10
11
           it's up to you.
12
                  THE WITNESS: Yeah, just in
13
           terms of this map, it looks like
14
           we're reporting on a three-digit
15
           zip code basis.
16
    BY MS. CONROY:
17
                 And is that data that's
18
    available to Janssen from the RADARS
19
    system from the Poison Control Centers,
20
    if you know?
21
                 Based upon some of the
22
    slides. Prior to that, that would be my
23
    best assessment, yes.
24
                 Have you yourself ever honed
```

- in on a particular zip code or area of
- the country with respect to data
- ³ concerning the Duragesic patch?
- ⁴ A. Could you clarify what you
- mean by honed in? I would get the data.
- 6 Occasionally the data would indicate that
- ⁷ there were particular concerns coming
- 8 from one aspect of the surveillance data
- ⁹ that affected a certain three-digit zip
- 10 code. And that they might have made a
- decision to do more intensive
- 12 surveillance at of area. So I am not
- sure what you mean by honed in.
- So I was aware that there
- were three-digit ZIP codes that came up
- on the surveillance issue as areas of
- concern.
- Q. Did you -- let me ask it
- this way. Was that something that you
- would look at, you might identify a
- three-digit zip code area and then you
- would ask for an investigator to go and
- look or do some other action, or is it
- something that you were aware of

- 1 happening but you were not the person who
- was actually saying, "Hey, you better go
- 1 look at a particular area"?
- A. That second, right. I would
- ⁵ receive the report and they would
- indicate where there were some findings.
- ⁷ And so I was aware of the reports. I
- 8 would not then tell them what to do.
- 9 Q. Okay. Do you know if those
- reports, if it was possible, for example,
- 11 here, to identify a particular
- three-digit zip code area where there
- were issues? Do you know if it was
- possible then to compare that to IMS
- data, prescription data with respect to
- that zip code area?
- A. I don't know if it could be
- done at a zip code level. And I -- so
- what they're seeing here are issues of
- abuse, misuse, and diversion. To begin
- with, it wouldn't necessarily mean that
- it was Duragesic or pharmaceutical grade
- fentanyl or any branded product of
- fentanyl. But -- so I don't think it

- 1 could be done.
- Q. You don't think that if
- ³ there was an investigator that was going
- 4 to go out and look at reports of misuse
- ⁵ in a three-digit zip code area that was
- 6 determined from RADARS, you don't think
- ⁷ it would be possible to look at
- 8 prescription data for that same area
- 9 through IMS?
- A. Well, I suspect that you
- 11 could look at physicians who were
- operating in that three-digit zip code
- and look at the prescriptions for that
- three-digit zip code.
- Q. I'm not suggesting it would
- be -- it would be linked. I'm just
- 17 asking if it could be done.
- A. Right. Yeah, I see where
- you're going with it. I believe that the
- IMS data could go down to the granularity
- of a three-digit zip code.
- Q. Do you know if the IMS data
- that was available to Janssen could look
- at where a prescription was filled as

- opposed to the physician who prescribed
- it? Do you know one way or the other?
- A. I don't.
- ⁴ Q. As far as you understand it,
- ⁵ that RADARS data, you can't distinguish
- ⁶ between patient misuse and abuse,
- ⁷ nonpatient misuse and abuse, physician
- 8 misuse or abuse, or pharmacy misuse or
- ⁹ abuse in the RADARS data?
- 10 A. Well, there were different
- 11 streams within the RADARS data. In some
- cases, key informant network may define
- what the abuse was, that there was a
- diversion of something or that there was
- laboratory data of fentanyl found in a
- laboratory examination of a death case
- ¹⁷ for example.
- So we would know from some
- 19 streams that it was fentanyl, from other
- streams the key informant network and
- the -- and we had police data. They
- might state in the police data that it
- was a branded product or that it was
- simply fentanyl.

- Q. Could you determine a
- distinction among those physician --
- abuse issues, or patients or pharmacy in
- 4 DAWN data?
- ⁵ A. I -- my understanding is the
- 6 DAWN data were fentanyl mentions. So you
- 7 could not distinguish it in the DAWN
- 8 data.
- ⁹ Q. What about in the poison
- 10 center control (sic) data?
- A. At times we could
- distinguish it, but not consistently.
- Q. Would it be fair to say that
- 14 for SCEPTRE data, it would totally depend
- on what you were told about it?
- A. So for SCEPTRE data there
- was always an attempt to try to -- to try
- to get as much information about a
- 19 reported case as possible. If there were
- issues that were unresolved in the
- initial report, there might be an inquiry
- to the reporter to try to get additional
- information. Sometimes we would get
- that; sometimes we wouldn't.

- 1 Q. Take a look at the next
- exhibit, which is Exhibit 29. And
- Exhibit 29 is a cover e-mail from you to
- ⁴ Fatih Sarioz. No idea how to pronounce
- 5 that. I'm sure I've pronounced it
- incorrectly. I just don't know how --
- A. I can't do better.
- Q. Man or woman? Do you know?
- ⁹ A. No, I don't.
- Q. Whoever this is, is it
- 11 Janssen in Turkey?
- 12 A. Yeah. Just going down to
- the message down at the very bottom of
- that. It says, "Let me introduce myself.
- 15 I am" -- and I'm assuming health
- economics manager of Janssen Turkey.
- Q. And this person sent this
- e-mail to you on August 7th of 2008. He
- or she says, "In Turkey, the opioid
- market is very small because MOH has the
- 21 concerns about the abuse potential of
- these products. According to our growth
- plan, we are planning to be a partner of
- MOH and show them the need of the

- ¹ patients to these products and
- desensitize them by showing evidence that
- Duragesic has no/limited abuse
- 4 potential."
- Do you see that?
- 6 A. I do.
- ⁷ Q. And so she was asking you if
- you could give her some information,
- ⁹ that's on the next page, about your
- ¹⁰ project.
- Do you see that?
- A. Yes.
- Q. And then you respond and
- say, "It would be incorrect to say that
- there's a risk management plan for
- Duragesic in the U.S. to show that
- Duragesic has not been abused. Rather,
- we recognize that fentanyl is attractive
- 19 as a drug of abuse; and, therefore, for
- Duragesic, there are significant risks
- for diversion and abuse, as well as
- misuse (including off-label uses) and
- overdose." And then --
- Did I read that correctly?

- ¹ A. Yes.
- Q. And then you attach the risk
- management plan that outlines various
- 4 risks and provides risk mitigation
- ⁵ strategies, including educational
- 6 activities and surveillance to monitor
- ⁷ for diversion, abuse, and misuse thereby
- 8 maintaining a favorable benefit-to-risk
- ⁹ ratio.
- The benefit-to-risk ratio,
- you're -- you are talking about a
- 12 favorable benefit to risk ratio of the
- marketing and sale of Duragesic, correct?
- 14 A. The continued marketing
- availability, that the benefits of using
- Duragesic appropriately, which includes
- proper patient selection, proper dose
- selection, proper monitoring, proper
- patient education, would outweigh the
- risks associated with the use of the
- ²¹ drug.
- Q. And then if you turn to the
- 23 actual revised risk management plan that
- 24 is dated June 14th of 2007.

```
Do you see that?
```

- ² A. Yes.
- Q. And were you involved in the
- ⁴ preparation of the risk -- of the revised
- ⁵ risk management plan?
- ⁶ A. Involved, yes.
- ⁷ Q. Okay. How involved were
- 8 you?
- ⁹ A. Well, we were certainly
- aware of the various streams of data that
- would be coming in around the risk
- management plan. We probably held the
- budget that would fund the various groups
- that were providing us with those data
- streams. We would have them come in, we
- would evaluate them, along with the
- safety group and other groups within the
- company and make sure that it was
- adequate to meet the needs of the Food
- ²⁰ and Drug Administration as well.
- Q. Would the document itself,
- as you were working on it, reside in
- medical affairs?
- A. I don't recall whether the

- document ultimately resided in medical
- ² affairs. But I know ultimately there was
- a separate benefit/risk group that had
- 4 overall responsibility for the REMS
- ⁵ program and later the RADARS program.
- ⁶ And they assumed responsibility for it.
- ⁷ It certainly started off within our
- group, but I -- it involved the safety
- group and other groups. So I don't know
- how I would answer the question where it
- resided. It -- I mean, it was generally
- available to all those groups, including
- the regulatory group obviously.
- Q. Would you --
- A. I -- I might answer that by
- saying, since the regulatory group was
- the direct interface with the Food and
- Drug Administration, the final document
- would probably reside with regulatory.
- Q. Would -- would there be a
- final document without your review of the
- entire document?
- ²³ A. No.
- Q. And it -- but it would also

- be fair to say that there are sections
- that other people other than you would
- 3 have contributed to?
- ⁴ A. Absolutely correct.
- ⁵ Q. But you would have read all
- 6 of it?
- A. I would have read all -- all
- 8 of it and been aware of it.
- ⁹ Q. If you could turn to
- Page 39. Oh, this is -- did I explain --
- this is JAN-MS-01204900. And it's an --
- it's the attachment to the e-mail which
- is the front page, which is
- ¹⁴ JAN-MS-01204898.
- I see here in the first full
- paragraph a reference to iatrogenic
- addiction, and then it says, "It's" --
- "it's addiction that occurs as a result
- of treatment by a physician."
- I don't think I had asked
- you previously for a definition for
- iatrogenic addiction. Do you agree with
- that definition?
- A. I do. It's generally

- ¹ accepted.
- Q. And is there -- we don't see
- that term very often or I have not seen
- 4 it very often in the documents. We
- 5 didn't see it in the White Paper for
- example. What -- is there a reason why
- ⁷ the term "iatrogenic addiction" is used
- 8 in the risk management plan?
- ⁹ A. It was one of the identified
- 10 risks of opioids.
- O. Is it different than
- addiction, a risk of addiction?
- 13 A. It -- it leads to the same
- outcome. There is a patient who becomes
- addicted to the drug. Iatrogenic would
- be that it's the result of treatment by a
- ¹⁷ physician.
- A patient may become
- addicted to opioids that he or she might
- have obtained illicitly, not through a
- 21 physician, and that would not be an
- instance of iatrogenic addiction.
- Q. Is there any -- so would it
- be fair to say that the iatrogenic is how

- someone becomes addicted? But the
- ² addiction is the same whether they
- ³ received a prescription from a physician
- or they got it on the street, if there's
- ⁵ a diagnosis of addiction?
- A. I would say that the source
- of the opioids would be through a
- 8 physician prescription rather than
- ⁹ through some other channel.
- Q. And -- and where you --
- where someone got the opioids would not
- change once they were addicted, the
- 13 symptoms of the condition of addiction
- would be the same, correct?
- A. Yes. That -- if it would
- meet the definition of addiction, which
- is to say destructive behaviors in -- in
- seeking drug, yes.
- 19 Q. If you could go to Page 52,
- please. You see there's a -- the second
- paragraph on the page says, "In summary,
- there's more than a decade of commercial
- experience with transdermal fentanyl as a
- mainstay of pain management. The

```
physical characteristics of the system
1
2
    that provide gradual onset of effect and
    steady pain relief also render a properly
    used and disposed system relatively
    unattractive to those seeking to obtain
5
6
    drug 'highs' or euphoria."
7
                 Do you see that?
8
           Α.
                 Yes.
9
                 At this time, the date of
           Ο.
    this document which is June 14th of 2007,
10
11
    had Janssen performed any studies to
12
    determine whether or not a transdermal
13
    system would be unattractive to persons
14
    seeking to obtain drug highs or euphoria?
15
                 MR. LIFLAND: Object to the
16
           form of the question.
17
                  THE WITNESS: I would
18
           consider the streams of the RADARS
19
           program, the risk management
20
           program, the surveillance program,
21
           to be studies, but not in the
22
           sense of controlled clinical
23
           trials. If -- if that's what
24
           you're asking about.
```

```
1
    BY MS. CONROY:
2
                 So, the -- I -- well, let me
    ask it this way. Is your answer then
    that the support for this statement that
5
    the physical characteristics of the
6
    transdermal statement -- system are
7
    unattractive to people seeking drug highs
8
    or euphoria, are RADARS and other
9
    surveillance mechanisms for systems?
10
                 MR. LIFLAND: Object to the
11
           form of the question. I think we
12
           need to quote it correctly. You
13
           left out the word "relatively."
14
                 MS. CONROY: Oh, I'm sorry.
15
           Let me -- let me start again.
16
    BY MS. CONROY:
17
                 Well, let me just ask you.
18
    What is your support of the first two
19
    sentences of that paragraph?
20
                 We had the DAWN data, we had
           Α.
21
    other streams of data coming in through
22
    the risk management plan, surveillance.
23
    We had data from longer term clinical
24
    trials where we looked at adverse events,
```

- and as part of the adverse events, there
- would also be reports of abuse, misuse,
- addiction, euphoria. We always saw those
- 4 to be low when -- in -- in those clinical
- ⁵ trials.
- So we felt confident that by
- ⁷ virtue of the delivery system and the
- 8 information that we were collecting,
- ⁹ including some published information
- about retrospective data on patients who
- had been treated long-term with a whole
- variety of Schedule II opioids,
- long-acting opioids, that the abuse
- 14 potential or the attractiveness of the
- 15 reservoir system relative to other
- 16 formulations that were out there, other
- drugs that were out there were -- it was
- 18 relatively unattractive.
- 19 Q. Had you ever done a study
- that had a primary endpoint to determine
- whether the reservoir transdermal system
- would be unattractive to those seeking --
- relatively unattractive to those seeking
- to obtain drug highs or euphoria?

- A. Well, the -- one of the
- studies that was done in conjunction with
- 3 the data filed with the Citizen's
- ⁴ Petition looked at attractiveness of the
- ⁵ fentanyl -- the Duragesic transdermal
- 6 fentanyl system with other Schedule II
- ⁷ opioids. And, in fact, on that scale, we
- 8 saw that Duragesic was the lowest, or
- 9 among the lowest with respect to
- 10 attractiveness, relative to the other
- opioids.
- Q. Was that with respect to
- obtaining a high or euphoria?
- A. No, it was -- attractiveness
- was the endpoint.
- Q. Right. Other --
- A. It didn't actually take the
- drugs.
- Q. Right. Well, we saw that
- there was -- at least at one time we saw
- that there was a proposed study that was
- not actually done that would determine
- when someone was chewing a patch whether
- or not there was a difference between the

- 1 high or the euphoria between the
- reservoir and the matrix, correct?
- A. Correct.
- Q. That was not done, correct?
- ⁵ A. Correct.
- ⁶ Q. So are you aware of any
- other study that was done with a primary
- 8 endpoint of determining the relative
- ⁹ unattractiveness of obtaining a drug high
- or euphoria from a reservoir patch?
- 11 A. Where the endpoint was
- getting a high, not just hoping to.
- Q. Doctor, what it says here,
- "unattractive" -- "relatively
- unattractive to those seeking to obtain
- drug highs or euphoria." Is there any
- study that the primary endpoint was that?
- A. Well, I would posit that the
- 19 attractiveness scale did measure
- 20 attractiveness because -- these drugs
- were attractive because they were looking
- to get a high. If they wouldn't get a
- high, the -- the drugs would not be
- ²⁴ attractive to them.

- So if you would, the -- that
- would be a surrogate measure of a high.
- The attractiveness of the drug would be a
- ⁴ surrogate measure of obtaining a high.
- It wouldn't be attractive to
- 6 an individual if he or she didn't obtain
- ⁷ the high that he or she was looking for.
- Q. I understand what you're
- 9 saying, and I believe that's when the
- drug is misused and abused.
- This sentence suggests to me
- that what's being explained is it's the
- physical characteristics of the system
- that provide gradual onset of effect and
- steady pain relief also render a properly
- used and disposed system relatively
- unattractive to those seeking to obtain
- drug highs or euphoria.
- So that suggests to me that
- you're not looking at individuals who are
- abusing, the way that test did?
- 22 A. That -- that test looked at
- individuals who had a history of misuse,
- abuse, and diversion, and what they found

- ¹ attractive about these systems which
- included the Duragesic reservoir.
- They found it attractive
- 4 because they were seeking to use the
- 5 systems to get a high. Yes, we measured
- 6 attractiveness, but it -- I believe that
- ⁷ the attractiveness is a surrogate measure
- 8 of their ability to get euphoria.
- 9 Q. And -- and that's the -- and
- that's the study that is support for this
- 11 statement?
- 12 A. That and the other streams
- of information about the lack of interest
- in obtaining Duragesic because the system
- was designed to release a -- a controlled
- amount of fentanyl over an extended
- period of time.
- Q. And the FDA, however, at
- 19 least in their rejection of the Citizen's
- Petition, did not agree that there was a
- lower abuse potential for the reservoir
- patch, correct?
- A. The FDA didn't agree that --
- MR. LIFLAND: I'm just going

1 to object to the form of the 2 question. 3 Sorry. Go ahead. THE WITNESS: The FDA didn't 5 agree that the data that we 6 submitted would require what we 7 requested them to institute a risk 8 management plan and a difference 9 in -- of designating a reservoir 10 patch and a matrix patch, because 11 under conditions of use that were 12 specified in the package insert, 13 appropriate conditions of use, the two drugs delivered a 14 15 bioequivalent amount of fentanyl 16 through the skin. 17 Clearly, the FDA has and continues to have concerns about 18 19 abuse, misuse, and diversion. But 20 their focus with respect to the 21 Citizen's Petition was on the 22 patient who is properly selected 23 for whom the package insert is 24 written, with the appropriate

```
1
           warnings about any of the types of
2
           activities that might lead to the
3
           increased fentanyl release or
           potential increased release with
5
           heat or whatever. That's why they
6
           ultimately rejected the Citizen's
7
           Petition.
8
    BY MS. CONROY:
9
                 If you could turn to Page
10
    109, please. Actually go back -- to make
11
    more sense, take a look at page 108, in
12
    the middle of the page where it says,
13
    "Additional measures for Duragesic."
14
                 And it says, "To further
15
    mitigate the possibility of diversion of
16
    Duragesic, the following steps are
17
    taken." And then there's a number, if
18
    you go from page 108, take a look through
19
    page 109, 110, and actually through the
20
    rest -- there's only one more page left.
21
                  It identifies ways to
22
    mitigate the diversion of Duragesic.
23
                 Did you have anything to do
24
    with the collection of information for
```

- ¹ this portion of the --
- A. No. This is clearly coming
- ³ from the supply chain, and it describes
- 4 the process of distribution for
- 5 Duragesic.
- Q. And do you see, on Page 109
- ⁷ it says under Number 4, "As per
- 8 regulation, orders are monitored for
- ⁹ suspicious quantities. Supply of product
- is stocked to any customers engaging in
- unlawful conduct or product diversion.
- "The mitigation measures
- serve to safequard the integrity of the
- supply chain and to minimize the amount
- of product in distribution."
- Do you see that?
- ¹⁷ A. I do.
- Q. Do you have any reason to
- disagree with that statement?
- A. I don't.
- Q. Okay. And then it goes on
- with subpart A, "The demand for Duragesic
- as quantified by IMS Health prescription
- data is matched with actual order

- quantities to verify that the supply
- chain does not" -- "does not contain
- excess product."
- Do you see that?
- ⁵ A. I do.
- ⁶ Q. Where at Janssen was that
- ⁷ done? Do you know what department or
- 8 division?
- ⁹ A. Again, I assume that this is
- all part of the supply chain and
- manufacturing.
- Q. And if you look up above,
- there's a JOM in all caps, written there.
- 14 Do you know what JOM is? Sorry --
- A. Yeah, on B.
- Q. Yeah, on B. There might be
- a reference earlier on the page. Let's
- ¹⁸ see.
- A. I believe -- this is 2007.
- I believe it's Janssen Ortho-McNeil.
- O. Janssen Ortho-McNeil?
- A. Yes. So in 2004 the medical
- ²³ affairs groups within Janssen at
- Ortho-McNeil were brought together and

- ¹ all of the pain products were
- ² consolidated under the Janssen
- ³ Ortho-McNeil group.
- 4 O. And Janssen Ortho-McNeil
- ⁵ also would have been responsible for the
- 6 monitoring of suspicious quantities and
- ⁷ the integrity of the supply chain?
- ⁸ A. Yes, because at that time
- 9 all of the activities were now within one
- company.
- 11 Q. I'm being shown a website
- 12 for JOM Pharmaceutical Services, Inc.
- And it just -- it's just a JOM. Do you
- 14 know if there's a different company now,
- JOM, that's not known as Janssen
- 16 Ortho-McNeil?
- 17 A. There is no Janssen
- Ortho-McNeil today. At some point the --
- Johnson & Johnson consolidated the
- ²⁰ activities all under the name of Janssen.
- Q. Do you know if -- you've
- been gone for a while. You may not know.
- Do you know if it's called JOM or J-O-M
- or how they refer to that company?

```
1
           A. I believe it's called
    Janssen Pharmaceuticals, a division of
    Johnson & Johnson.
                 MR. LIFLAND: May I clarify,
5
           just to look at page 108.
6
                 MS. CONROY: Sure.
7
                 MR. LIFLAND: There's a
           reference to --
9
                 MS. CONROY: Oh, did you
10
           find it?
11
                 MR. LIFLAND: It may be
12
           referring simply to the central
           distribution center that's
13
14
           referred to on 108. But I don't
15
           know if the witness can speak to
16
           that. I don't know if that's what
17
           the website is.
18
                 MS. CONROY: I don't -- my
19
           understanding -- I'm going to look
20
           a little further back. My
21
           understanding is that it's not --
22
           well --
23
                 THE WITNESS: Well, under --
24
           at the -- I'm sorry. At the
```

```
    bottom of 108 it states, "Domestic
    shipments originate from the
```

- ³ central distribution center in
- 4 Somerset New Jersey (Janssen
- ortho-McNeil)."
- 6 BY MS. CONROY:
- ⁷ Q. You found it.
- 8 A. So that's my assumption,
- ⁹ that JOM is, in fact, Janssen
- ¹⁰ Ortho-McNeil.
- Q. Great. Thank you. Like
- every other company, they seem to go to
- the acronym after so many years.
- A. And they appropriately did
- that after first writing it out. We just
- took a while to find the original full
- 17 name.
- Q. Yes. That's right. And if
- 19 you could take a look on Page 110. The
- second bullet point says, "Authorized
- demand is defined as the calculated total
- demand for the past 52 weeks divided by
- the same number of weeks factored for
- both price change activity and product

- ¹ growth rate as JOM and its affiliate
- ² companies deem appropriate."
- Do you see that?
- ⁴ A. I do.
- ⁵ Q. Do -- have you ever seen any
- of these calculated -- these demand
- 7 calculations?
- A. I haven't seen them. But I
- ⁹ was aware that as part of the
- 10 responsibilities in manufacturing and
- marketing a scheduled product, that we
- would have to assess the need for raw
- product that would go into the production
- of finished product on a regular basis.
- Q. And what about after the
- product was -- you had a final product
- and it was manufactured apparently from
- this. There was also supply integrity
- protocols with respect to how much
- finished product was going out the door,
- 21 correct?
- A. That's my understanding.
- Q. Then the next bullet point
- says, "In the event that orders for any

- specific product for any specific 'ship
- to' location significantly exceed the
- ³ authorized demand for this product, JOM
- 4 will contact the customer to review the
- 5 order."
- Do you see that?
- ⁷ A. I do.
- ⁸ Q. Were you ever in the chain
- 9 of communication -- for example, were you
- ever told that there was a particular
- 11 customer that had been informed that they
- had exceeded the order, for example?
- ¹³ A. No.
- Q. As far as you know, that was
- ¹⁵ a JOM responsibility?
- A. Yes.
- Q. And then a little bit
- ¹⁸ further down on the page, it says,
- 19 "Additionally, per request of the DEA,
- ²⁰ quarterly Duragesic sales analysis
- reports are submitted to the agency."
- Do you see that?
- ²³ A. I do.
- Q. They're submitted to DEA,

```
1
    correct?
2
           Α.
                  Correct.
3
                  "These reports detail
    manufacturing plant output from ALZA to
    Janssen Pharmaceutical, Inc." -- that's
5
6
    the manufacturing piece, right?
7
                  The finished product.
           Α.
                  -- "sales from Janssen to
8
           0.
9
    wholesalers, and IMS data on
10
    prescriptions filled by retail
11
    pharmacies, hospitals, and long-term care
12
    facilities."
13
                  Do you see that?
14
                  I do.
           Α.
15
                  And so would it be fair to
           Ο.
    say that all of that data was available
16
17
    to Janssen Ortho-McNeil in order to
18
    create reports for the DEA?
                  That's my understanding of
19
20
    what it states here.
21
                  MS. CONROY: That is all I
22
           have for now. I know that your
23
           counsel is going to ask you some
24
           questions as well. I bet you I'll
```

```
1
           be back.
2
                  THE VIDEOGRAPHER: Shall we
3
           go off the record?
                  MR. LIFLAND: Yes, let's go
5
           off the record.
6
                  THE VIDEOGRAPHER: Okay.
7
           The time is 2:55 p.m. We are
8
           going off the record.
9
                  (Short break.)
10
                  THE VIDEOGRAPHER: We are
11
           back on the record. The time is
12
           3:18 p.m.
13
14
                    EXAMINATION
15
16
    BY MR. LIFLAND:
17
                 Good afternoon,
18
    Dr. Moskovitz?
           A. Good afternoon.
19
                  MR. LIFLAND: I'd like to
20
21
           start, Counsel, just by following
22
           up a couple of areas from his
23
           30(b)(6) corporate designee
24
           testimony. So these will be given
```

```
1
           initially as -- in his capacity as
2
           the corporate designee for Janssen
3
           on the topics that -- that were
           specified. And then once we're
5
           done with that, we can indicate on
6
           the record and proceed with a
7
           normal direct examination in his
8
           personal capacity.
9
                  MS. CONROY: That's fine.
10
                  MR. LIFLAND: Okay.
11
    BY MR. LIFLAND:
                 Dr. Moskovitz, one of the
12
13
    questions that you were asked yesterday
14
    was whether you knew whether the company
15
    continued to report progress reports
16
    under the risk management plan to the FDA
17
    after the last one that was marked as an
18
    exhibit which I believe was around 2012,
19
    and you responded that you didn't have
    that information.
20
21
                 Have you had the opportunity
22
    since your dep -- the first part of your
23
    deposition yesterday to go back and see
24
    if you could find the information to
```

```
1
    answer that question?
2
           A. I have.
3
                 Okay. Let me place before
    you a document which we'll mark as the
5
    next in order.
6
                 MR. LIFLAND: What number
7
           would that be? Ah, 30.
8
                  (Document marked for
           identification as Exhibit
9
10
           Janssen-Moskovitz-30.)
11
    BY MR. LIFLAND:
12
                 Can you tell me what that
13
    document is?
14
                 This is the risk evaluation
           Α.
15
    mitigation strategy, the REMS program,
16
    that was prepared by what ultimately
17
    became the REMS programs company.
18
                  These are a group of opioid
19
    manufacturers that agreed to develop,
20
    with the FDA's quidance, a class-wide
21
    REMS that covered all of the long-acting
22
    opioid products.
23
           Q. Can you turn to Page 20 of
```

the document please. And before I --

24

- before I go further, let me read the
- 2 Bates number in. It's JAN-MS-00935481.
- 3 And it goes through, it looks like,
- 4 00935534.
- 5 Turning to Page 20, I'd like
- 6 to draw your attention to Item 5. Can
- you tell me what that describes?
- ⁸ A. Just reading the,
- 9 "Commitment to surveillance monitoring
- for misuse, abuse, overdose, addiction,
- death and any intervention to be taken
- 12 resulting from signals of these metrics,"
- and I won't continue reading on.
- So in essence, this was a
- 15 commitment to continue the surveillance
- programs that -- as part of the
- 17 consortium that we already had in place
- 18 for Duragesic, but at this point, since
- it became a class-wide REMS, we would
- ²⁰ participate in the surveillance
- 21 activities along with the consortium of
- the other companies.
- Q. So it's your understanding
- that those surveillance activities

- continued for Duragesic, but the
- ² reporting was then done through the REMS
- ³ process?
- ⁴ A. That's correct.
- 5 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-31.)
- 8 BY MR. LIFLAND:
- 9 Q. Let me show you what I'll
- mark as Exhibit 31.
- 11 (Whereupon, a discussion was
- held off the stenographic record.)
- 13 BY MR. LIFLAND:
- Q. Can you tell us what
- 15 Exhibit 31 is?
- A. This is a letter to the Food
- and Drug Administration that describes
- our transition from having the individual
- 19 REMS program for Duragesic to now
- transitioning to the consortium-wide REMS
- 21 program for all long-acting opioids. And
- the most important information here is,
- in reading it, "The company now
- transitions to the new REMS programs

- ¹ activities as approved by the agency.
- ² This submission will serve as our final
- 3 RMP" -- risk management program --
- 4 "report, providing Duragesic risk
- 5 management information in the format of
- our previously filed reports."
- ⁷ Q. All right. And just for the
- 8 record, the Bates number on that is
- ⁹ JAN-MS-00700680 through 81.
- The second topic, you were
- 11 asked yesterday in connection with your
- corporate witness testimony in your
- capacity as a corporate designee about
- whether the company, Janssen, and I think
- Johnson & Johnson may have been
- mentioned, has a fixed definition or a
- standard definition of the terms
- "dependence," the term "addiction."
- 19 There may have been one other term.
- Does -- do Janssen and
- Johnson & Johnson have fixed corporate
- definitions of those terms that apply
- whenever the terms are used in the
- company?

- ¹ A. No.
- Q. And how would you know, if
- 3 you saw the term in a company document,
- 4 what was meant if a term like
- ⁵ "dependence" were used or a term like
- 6 "addiction" was used?
- A. I would have to look at the
- 8 context in which it was used, by whom it
- ⁹ was used. If you go through the
- 10 literature there are a variety of
- definitions, specific definitions around
- each of those terms.
- 13 If it came from a clinical
- 14 report, a clinical trial, then they would
- define the criteria upon which they would
- use that definition. If it came from an
- observational study, they would indicate
- 18 how they might have arrived at that
- ¹⁹ definition.
- But there was no -- there
- certainly was no company definition that
- assured that there was consistent use of
- that terminology within the company.
- Q. So, for example, it's

- 1 possible that in a company document, the
- ² company employee might simply use the
- 3 term incorrectly?
- ⁴ A. Absolutely.
- ⁵ Q. So one would have to look at
- 6 the context and then make a -- make a
- ⁷ judgment as to how the term was being
- 8 used?
- ⁹ A. That's correct.
- MR. LIFLAND: That's all I
- had on the corporate witness
- testimony.
- MS. CONROY: Okay.
- 14 BY MR. LIFLAND:
- O. Okay. Dr. Moskovitz, we're
- now going to turn to direct examination
- in your capacity as a fact witness.
- I'd like to just briefly
- once again go over your background and
- credentials. We won't spend a lot of
- time on this. But just so we have a
- ²² continuous testimony.
- ²³ A. Okay.
- Q. You're a medical doctor?

- ¹ A. Yes.
- Q. And where did you go to
- medical school?
- ⁴ A. Boston University.
- ⁵ Q. And what -- when did you
- ⁶ graduate?
- A. It was a combined six-year
- 8 program. So I was at Boston University,
- ⁹ undergraduate and medical school through
- ¹⁰ 1970, '76, and graduated in '76.
- Q. Can you give us a capsule
- description of your areas of specialty
- ¹³ and training?
- A. Within medical school or
- subsequent?
- Q. Medical school.
- A. Okay. So it was a standard
- medical school training. We were trained
- in biology, physiology, pharmacology.
- The last two years were generally spent
- in doing clinical rotations on the
- various aspects of medicine with exposure
- to pediatrics, and OB/GYN, internal
- medicine, surgery, the emergency room,

- and subspecialties that might interest
- ² us. And so we had a broad overview of
- ³ the practice of medicine.
- 4 O. And in connection with some
- of that work, for example, your emergency
- for room experience, did you have any
- occasion to prescribe opioid pain
- 8 products?
- 9 A. Yes. But my -- so beyond
- medical school, I did an internship and
- three years of residency, and two years
- of fellowship. And that's where the bulk
- of my direct patient care comes in. And
- 14 certainly through the period of time that
- ¹⁵ I was an intern, resident, and fellow, I
- had opportunities to prescribe opioids.
- Q. And after medical school,
- what did you go on to do?
- A. I did training in internal
- medicine and subsequently in the
- subspecialty of infectious disease.
- Q. And when you went to work,
- what did you do after that?
- A. After I finished my

- ¹ fellowship in infectious diseases, I went
- ² to work for Hoffman-La Roche.
- Q. And that's a pharmaceutical
- 4 company?
- A. Yes. In Nutley, New Jersey.
- Q. And you worked in the area
- of the pharmaceutical development?
- A. I worked on the research and
- 9 development side with anti-infectives.
- Q. And would that have given
- 11 you experience with clinical trials,
- bringing products to market?
- A. Yes. Our responsibility was
- in doing the clinical trials that led to
- the approval of a number of drugs, but
- most importantly at that time an
- ¹⁷ anti-effective called ceftriaxone.
- Q. And before you joined
- Janssen, did you work for another
- 20 pharmaceutical company?
- A. Yes. I worked for
- Rhone-Poulenc R-H-O-N-E, P-O-U-L-E-N-C,
- 23 Rhone-Poulenc Pharmaceuticals in
- Princeton, New Jersey for approximately

- ¹ five years.
- Q. And what did you work on
- 3 there?
- ⁴ A. The anti-infective area.
- ⁵ We -- the primary area of research was
- 6 early development of HIV compounds.
- ⁷ Q. And when did you move to
- ⁸ Janssen?
- ⁹ A. In 1990.
- Q. And your initial position
- 11 there was what?
- A. As the director of the
- anti-infective group within Janssen
- 14 Research Foundation.
- Q. And can you just give a
- capsule description of what you did at
- Janssen Research Foundation and for how
- long?
- 19 A. I was at Janssen Research
- Foundation for ten years. The Research
- Foundation was primarily responsible for
- the Phase II and III, the clinical trials
- that led to showing the effectiveness and
- safety and risks and efficacy of drugs

- that we were looking to bring to the
- ² market.
- So it was a clinical
- 4 development program. I was well versed
- ⁵ in the issues and the regulatory issues
- 6 around clinical trial methodology that
- 7 would support the safety and efficacy and
- 8 benefit-risk ratio of the products that
- ⁹ we brought to market.
- Q. And when did you first
- become involved with the pain products
- 12 that Janssen had?
- 13 A. In the year 2000 when I
- moved over to the medical affairs group.
- Q. And what was your position
- 16 there?
- A. Group director of the pain
- and mycology area, mycology being
- ¹⁹ anti-fungals. I retained my
- responsibilities for some of the
- anti-infective compounds, but I was
- brought on primarily to develop a group
- that would be responsible for the pain
- ²⁴ products.

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Q. And some of those pain
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- ² products were Schedule II opioid
- medications, correct?
- ⁴ A. Correct.
- ⁵ Q. Can you -- can you tell us
- 6 which ones those were?
- A. That was Duragesic, the
- 8 transdermal fentanyl patch.
- 9 Q. And were there others later?
- 10 A. Yes. And later that
- include -- well, it included other
- 12 formulations of fentanyl that we were
- developing, that we -- that we provided
- input into development into the R&D
- program. But a drug that did come to
- market was Nucynta, N-U-C-Y-N-T-A, which
- is -- the generic name is tapentadol.
- Q. And you're now retired,
- 19 right?
- A. Yes.
- Q. And when did you retire?
- ²² A. In May of 2011.
- Q. So you've now come back as a
- consultant to help the company meet its

- obligations to provide information in
- ² this litigation?
- ³ A. Yes.
- Q. And is that a paid
- ⁵ consulting job?
- A. Yes, it is.
- Q. So you're paid for your
- 8 time. How are you paid?
- ⁹ A. I'm paid for my time.
- 0. And at what rate?
- A. At a rate of \$375 an hour.
- Q. All right. Let's go back to
- your time in medical affairs at Janssen
- in the pain group starting in 2000. Just
- quickly, can you run through the general
- roles and -- role and responsibilities of
- that group in connection with Janssen's
- pain medicines?
- 19 A. The medical affairs group in
- general, in contradistinction to the R&D
- 21 groups, was responsible for marketed
- products. So these are products that the
- FDA had already approved and which were
- marketed in the United States. And we

- would have a cross-functional team, we
- were part of a cross-functional team that
- ³ explored opportunities to provide
- 4 additional data, postmarketing data, that
- would expand the body of knowledge around
- 6 the specific drug.
- 7 The clinical trials that
- ⁸ generally lead to approval of a product
- 9 are somewhat limited and they meet the
- criteria that the FDA sets out for
- providing adequate data to assess
- efficacy and safety of a drug, but don't
- 13 necessarily meet the information that
- the -- the healthcare community and
- treating physicians might need,
- information such as comparative data
- against other drugs. Information on
- subsets of patients, information on
- issues other than straightforward
- efficacy and safety. That might include
- specific adverse events or functionality,
- in the case of -- of pain medicines. And
- the medical affairs group led a
- 24 cross-functional team that assisted in

- developing some of those data.
- Q. And how would your group go
- 3 about developing data like that?
- A. We would be involved early
- on in the early development of a compound
- in determining what data would be
- ⁷ developed for the initial approval based
- ⁸ upon the data that would be developed for
- ⁹ the initial approval.
- We might even at that point
- 11 give input to endpoints that might be
- included in those trials, but generally
- without overcomplicating those trials.
- But understanding what the
- additional needs of the healthcare
- community might be after the approval, we
- would, based upon those data, meet with
- healthcare providers, the treating
- 19 community, experts in the field of, in
- this case, pain, to get their input to
- what additional data needs might be out
- there, what are the opportunities for us
- to develop those data streams and how
- best to do those things.

- 1 It certainly goes beyond
- ² just the realm of clinical trials. We
- would look at all of the potential groups
- 4 that might be using the drug. That --
- that would include pharmacy, pharmacy
- 6 benefit managers, and the type of
- ⁷ information that they might need to tier
- ⁸ a product, to put the product on
- ⁹ formulary. So a broad range of
- additional data that might prove useful
- 11 after the drug receives its initial
- ¹² approval.
- O. And did medical affairs
- participate in other cross-functional
- areas of -- of the pain drugs, for
- example, safety, communications,
- promotional review, can you describe
- 18 those?
- A. Yes. As I said, there are a
- whole broad range of activities that
- 21 medical affairs was involved with. We
- had representatives to a promotional
- review committee. There -- this is a
- committee that reviewed pieces that were

- 1 contemplated to be used as part of the
- ² promotion of the drug.
- Medical affairs included not
- ⁴ just the physicians within my group, but
- 5 the medical information group, PharmDs
- 6 who would assess the accuracy of the
- ⁷ information that would be provided in
- 8 promotional review. They would review
- ⁹ the source documents that were being used
- to -- to provide the information that was
- in the -- the promotional materials.
- We would have opportunities
- to do additional studies that even
- wouldn't be conducted under the auspices
- of the medical affairs group, so we would
- explore potential investigator-initiated
- 17 studies where there was an interest in
- doing work with some of our compounds to
- expand the basis of knowledge, but didn't
- necessarily fall within the budgets or
- timelines that we might be able to fund
- internally, and we would consider funding
- those externally.
- Q. What about safety reviews

- and surveillance? Just generally, I'm
- ² going to come back to this.
- A. When we had -- well, safety
- 4 was an ongoing manner that -- that we
- ⁵ followed our drugs. There was a safety
- ⁶ group and all reports of adverse events,
- ⁷ this is -- this is in addition to the
- 8 adverse events that we learned of in the
- ⁹ formal clinical trials that led to
- approval. There is a requirement
- 11 subsequent to that that any additional
- 12 clinical trials report, the safety to the
- safety group, reports that would come in
- 14 from outside both patients and healthcare
- providers, and, in fact, anyone within
- the company who learned of an adverse
- event. I think I mentioned that even as
- a retiree, I have the responsibility for
- 19 reporting adverse events that I learned
- about with -- with our compounds. And --
- and so we would meet with the safety
- group and assess those.
- Where we had additional
- mechanisms in place to assess risks

- 1 associated with our compound, in the case
- of Duragesic, we had risk management
- plans that -- that followed databases and
- 4 other means of getting information about
- ⁵ risks of abuse, misuse, diversion, safety
- issues for fentanyl in general, other
- ⁷ scheduled opioids, and Duragesic.
- 8 We would review those data
- 9 streams and determine whether there were
- additional activities that -- that we
- needed to be taking. Those activities
- might be changes in package inserts,
- changes in educational material.
- Q. All right. Well, before we
- come back to that, let's talk a little
- bit more about Duragesic. I think you
- said, Duragesic was already on the market
- when you started the pain group, medical
- affairs group. How long had it been on
- the market?
- A. It was -- in the United
- States it was approved in 1990. So it
- had been on the market for ten years.
- Q. And what is Duragesic?

- A. Duragesic is a reservoir
- patch, a form-filled and sealed reservoir
- patch, so the active ingredient is in a
- ⁴ patch that is designed to deliver a
- 5 controlled amount of fentanyl through the
- 6 membrane and then through the skin; you
- ⁷ apply the patch to the skin. And it
- 8 releases fentanyl in a controlled manner
- ⁹ over a period of approximately three
- days, 72 hours.
- Q. And what is fentanyl?
- A. Fentanyl is a potent opioid.
- 13 The opioid class of drugs are drugs that
- 14 attach to the -- certain receptors in the
- body, called mu opioid receptors. And
- these receptors are involved in
- modulation of pain.
- Q. And is fentanyl used in pain
- products besides Duragesic or other -- or
- other pain pills?
- Is it used in hospitals for
- example?
- A. Yes. Fentanyl is --
- fentanyl was originally synthesized I

- believe around the 1960s and had been
- ² used as an anesthetic agent for decades.
- 3 It was also commonly in use in -- as an
- 4 intravenous administration for
- ⁵ postoperative care where, in a hospital
- 6 setting, along with other compounds, it
- ⁷ might be used for patient-controlled
- 8 anesthesia, so postoperatively a patient
- 9 might have the ability to inject himself
- or herself with a controlled amount of
- intravenous fentanyl to control their
- postoperative pain.
- Q. And how is fentanyl
- 14 regulated?
- A. Fentanyl is regulated under
- 16 regulations of the drug -- Drug
- 17 Enforcement Agency and the Food and Drug
- 18 Administration. It's a scheduled
- 19 product. It's -- it is a Schedule II
- 20 product. Schedule II products are those
- 21 products that are considered to have
- therapeutic values, but have the highest
- propensity for abuse, misuse and
- diversion, and so they are highly

- 1 regulated in terms of -- of distribution
- ² and the access to the drugs.
- Q. And fentanyl is what's
- 4 called the active ingredient in the
- 5 Duragesic skin patch?
- ⁶ A. Yes.
- 7 O. So it's -- but it's
- 8 delivered through a patch, as opposed to
- ⁹ through an IV or by an anesthesiologist?
- 10 A. That's correct. It goes
- through the membrane of the patch that's
- 12 attached to the patient's skin, and then
- through the patient's skin into the
- 14 bloodstream.
- Q. Now, have you heard of
- illegally manufactured fentanyl or street
- ¹⁷ fentanyl?
- A. I have.
- Q. And have you heard names,
- for example, that goes by?
- A. Yes. It's widely known that
- fentanyl is an attractive drug of abuse
- and misuse and is sought after. Even in
- some of our own surveillance, we were

- well aware that there were -- there were
- ² illicit laboratories, laboratories
- outside the United States that
- 4 manufactured fentanyl or closely related
- 5 compounds to fentanyl, and they would
- 6 have a variety of street names, one of
- ⁷ which we came to be -- which was familiar
- 8 to us was China white.
- ⁹ Q. And is that the same thing
- as the fentanyl that's used in these
- hospital settings or in the Duragesic
- 12 patch?
- A. No, it's not.
- 0. And how is it different?
- A. Well, it's certainly not
- controlled in any sense of the controls
- that are in place for a pharmaceutical
- grade product where stringent guidelines
- ¹⁹ around specifications for manufacture,
- the supply chain is carefully controlled.
- We know exactly what goes into the
- product, the concentration of the
- product.
- We have no idea how an

- illicitly manufactured product might be
- made or even if it's identical to the
- ³ product fentanyl.
- Q. And does that affect how
- 5 dangerous the product is?
- A. It certainly could, if -- in
- 7 most instances where the product is
- 8 obtained illicitly, the recipient might
- 9 have, first of all, no idea whether the
- product he or she is using even contains
- 11 fentanyl. There have certainly been
- 12 reports of fentanyl-tainted heroin, where
- ¹³ an individual expected that he or she was
- trying to use heroin but in fact was
- using fentanyl.
- Even if they sought
- fentanyl, it would not be in a controlled
- dosage, the way a Duragesic patch is
- ¹⁹ provided.
- Q. Getting back to the
- Duragesic patch, which you said had been
- on the market for ten years when you
- became the pain director. What did you
- do to learn about that product when you

- came into that position?
- A. I familiarized myself with
- the package insert, with the clinical
- ⁴ trials that were conducted to support the
- ⁵ pharmacokinetics. I certainly learned
- 6 about the pharmacokinetic profile and the
- ⁷ ability of the patch to deliver a
- 8 controlled rate of release over the three
- ⁹ days. The clinical trials that led to
- approval, that led to -- led the FDA to
- 11 assess the safety and efficacy of the
- 12 product --
- Q. Let's pause for a second on
- the package insert. Just broadly -- and
- we'll come back to it later. But what
- information does that provide, the
- package insert?
- 18 A. So in -- so a package insert
- is all of the important information that
- ²⁰ a prescriber would need to prescribe the
- product. That would include such things
- as the indications, what the product is
- indicated for; the selection of the dose
- for the patient; choosing the patient

- 1 properly; assessing the patient for the
- potential for adverse events; in the case
- of Duragesic, certainly, the information
- on how to monitor that patient over a
- ⁵ period of time to assess that the patient
- 6 continues to get the benefits of the
- 7 product with reasonable tolerability;
- 8 education that the healthcare provider is
- ⁹ to share with the patient so that he or
- she uses the product appropriately and
- does not misuse it in ways that they
- might accidentally do so.
- 0. And the --
- 14 A. Those are the key elements
- that we are providing to the physician.
- Q. The package insert would
- describe, for example, how the product
- works chemically, how it's absorbed in
- the body, those kinds of things as well?
- A. Yes. That would be part of
- the package insert.
- Q. And what else did you do to
- familiarize yourself to learn about the
- product?

- A. In a general sense, I
- ² familiarized myself with some of the key
- concepts around pain management,
- 4 particularly pain management with
- opioids; the issues of abuse, misuse and
- diversion; the other opioids that were
- ⁷ available; differences between immediate
- 8 release and controlled-release opioids;
- 9 other compounds that are used to treat
- pain; the process of scheduling.
- Familiarized myself with
- some of the experts in the field and some
- of the work that was continuing around
- issues of effectiveness, abuse, misuse,
- diversion. In a broad sense becoming
- familiar with the -- with the entire
- 17 range of pain management.
- Q. And did you have others
- working with you in this role?
- 20 A. I did.
- Q. And who were they?
- A. Well, specifically one of
- the earliest activities that I embarked
- on was to bring the ENA physician who had

- ¹ specific training. This was an
- ² individual trained as an
- ³ anesthesiologist, and anesthesiologists
- ⁴ are experts at using controlled
- ⁵ substances.
- We spoke already about the
- ⁷ use of fentanyl as an anesthetic agent.
- 8 And so I brought somebody in who had
- 9 expertise in pain management issues and
- 10 clinical trial methodology.
- Q. And did you have access to
- others at Janssen who had medical
- expertise in these areas?
- A. Yes. I think I indicated
- 15 that medical affairs was a
- cross-functional group. We interacted
- 17 certainly with the research and
- development side, where there were a
- 19 number of physicians who had expertise in
- pain management and clinical trial
- ²¹ development.
- We interacted with the
- outcomes research group, and they had
- individuals who had expertise as well. I

- 1 had access to the manufacturer of the
- ² product, individuals at ALZA who also had
- 3 some of the history of the development of
- 4 the product.
- ⁵ Q. So let's talk a little bit
- 6 about the benefits and risks of
- ⁷ Duragesic. But before we start that, can
- you explain which patients the medication
- ⁹ is intended for?
- 10 A. Yes. If you go to the
- indications, even early on, this was
- indicated for patients with moderate to
- severe chronic pain, individuals who
- would benefit from treatment with a
- long-acting opioid after proper patient
- selection, individuals who generally had
- been -- were tolerant of other opioids,
- had received other opioids, for whom
- other treatment options either didn't
- work or could not be used perhaps because
- they had contraindications to other
- medications or they had had adverse
- events for the other medications.
- Q. So can you give some

- examples of other treatment options?
- A. Sure. Patients with pain
- might be treated with -- well non --
- 4 non-pharmaceutical interventions. They
- ⁵ might be treated with cognitive
- ⁶ behavioral therapy; physical therapy
- ⁷ initially; with milder analgesics that
- 8 would include acetaminophen, nonsteroidal
- 9 anti-inflammatories, such as ibuprofen,
- or naproxen.
- There were also milder
- opioid options out there, and opioids
- with short duration of action.
- Q. And to find the indication
- 15 for the product, where would we find
- that, what you just described?
- A. It's under the indications
- section of the package insert.
- Q. Let's just get one out.
- MR. LIFLAND: Do we have the
- 2005 label?
- MR. RODRIGUEZ: Do you have
- that in your package?
- MS. CONROY: That, we do.

```
1
                 MR. LIFLAND: Let's hand it
2
           out, and -- otherwise we're --
3
                 MS. CONROY: I have no
           question we have it. It's in the
5
           packet -- it's in about eight
6
           boxes that you gave to us
7
           yesterday. So thank you. We only
8
           need one.
9
                  (Document marked for
10
           identification as Exhibit
11
           Janssen-Moskovitz-32.)
12
    BY MR. LIFLAND:
13
           Q. I'm marking this document as
14
    Exhibit 32. It begins with
15
    JAN-MS-00780844. It ends with
16
    JAN-MS-00780887.
17
           A. Thank you.
18
           Q. Dr. Moskovitz, can you tell
19
    me what this document is?
20
                 This is what is commonly
           Α.
21
    referred to as the package insert.
22
    Technically it's the full prescribing
23
    information for Duragesic.
24
           Q. And these package inserts
```

- ¹ are regulated by the FDA, correct?
- A. Yes, they are.
- ³ Q. And do they change over
- 4 time?
- ⁵ A. They do.
- 6 Q. So you would need to look to
- ⁷ see when this package insert was in
- 8 effect, if we wanted to know what period
- ⁹ of time it applied to?
- A. Yes.
- 11 Q. Take a look at -- you may be
- able to tell just by glancing at it which
- period of time, but if you go to --
- 14 A. The date would usually be on
- the last page.
- Q. Well, let me -- let me just
- 17 represent to you that this is the 2005
- package insert, you might be able to look
- 19 at it, look at the contraindications and
- just -- oh, I'm sorry, yes. The last
- page here, the very last page of the
- document.
- A. Okay. The very last page of
- the document I have is -- oh, of the

```
document.
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- Q. No, no, the last page with
- the signature at the last page. Is there
- ⁴ a date there?
- 5 A. There is. 2/4/05.
- 6 Q. So that's 2005?
- ⁷ A. Yes.
- Q. Okay. Now, can you turn to
- ⁹ where a doctor would find the indications
- 10 for the product?
- 11 A. So in the black box you'll
- see, "Duragesic is indicated for
- management of persistent moderate to
- severe chronic pain that requires
- continuous around-the-clock opioid
- administration for an extended period of
- time and cannot be managed by other means
- such as nonsteroidal analgesics, opioid
- combination products, or immediate
- ²⁰ release opioids."
- Q. So that's what you were
- talking about in terms of what products
- the -- the product -- or what patients
- the product is intended for?

- A. That's correct. The -- the
- patients who have this indication would
- be considered for -- might be considered
- 4 candidates for Duragesic.
- 5 Then on -- the specific
- indications of usage is really a repeat
- of what I just gave you that was in the
- 8 black box. And that's on JAN-MS-0780852.
- I don't have to repeat it.
- 10 It's the same indication.
- Q. And are you aware of whether
- this indication from 2005 has changed
- 13 since then?
- A. Yes, it has. I believe the
- 15 current indications are similar, but the
- wording indicates that it's for
- management of pain that's severe enough
- to require around-the-clock treatment.
- 19 I'd have to go back to the
- exact wording. But it does change over
- time as more information becomes a
- available and the benefits/risks are
- ²³ assessed.
- Q. But it's still for patients

- who require continuous around-the-clock
- opioid administration for an extended
- ³ period of time?
- ⁴ A. Yes. And patients with
- ⁵ chronic pain -- again, this is moderate
- 6 to severe. Ultimately recurrent is for
- ⁷ severe enough.
- 8 O. Can it be used for acute
- ⁹ pain?
- 10 A. It should not be used for
- 11 acute pain.
- Q. And it is -- is that
- indicated somewhere in the package
- 14 insert?
- 15 A. If you -- even within the
- black box, the second bullet, it
- should -- it's contraindicated, which is
- to say it should not be used, "In the
- management of acute pain or patients who
- require opioid analgesic for a short
- 21 period of time."
- Q. And has the -- does the
- indication limit the kinds of chronic
- pain for which the product may be used?

- A. No, it's indicated for
- ² chronic pain.
- Q. Has that always been the
- 4 case?
- ⁵ A. Yes, it has.
- 6 O. So it wouldn't be limited
- ⁷ for example, to chronic pain from cancer?
- A. That's correct.
- ⁹ Q. It could be any kind of
- 10 chronic pain?
- 11 A. Chronic pain that meets the
- criteria of persistent around-the-clock
- need for an analgesic, yes.
- Q. Back to the question about
- the benefits and risks. What are the
- benefits of the Duragesic patch for the
- ¹⁷ patient?
- A. So to begin with, fentanyl
- itself is a potent opioid that attaches
- to the mu opioid receptor. It's a
- well-known receptor that modulates pain.
- We developed Duragesic such
- that it delivers fentanyl in a controlled
- manner so that the drug is delivered

- transdermally over a period of 72 hours,
- ² approximately three days.
- Q. What's the importance of
- 4 having a controlled dose?
- ⁵ A. Well, so to begin with it
- 6 allows you to have less frequent dosing.
- ⁷ But also a controlled dose minimizes, in
- 9 pharmacokinetic terms, peaks and trough.
- 9 So you have lower high concentrations as
- the drug is coming into the bloodstream,
- and you don't go as low as -- as an
- orally administered drug as the drug
- wears off. And that is thought to
- minimize the potential for abuse and
- ¹⁵ addiction. It allows the patient to
- potentially not focus on their pain for
- the extended period of time. We are
- aware of concerns from physicians that
- patients were focused on when they could
- take their next pill, and -- and this
- 21 allows for a period of -- of three days
- with continuous pain relief that
- potentially would allow the patient to
- get back to their activities of daily

- ¹ living.
- Q. Is there still a potential
- ³ for abuse with the patch?
- ⁴ A. Absolutely. Fentanyl is
- ⁵ recognized as a Schedule II drug with
- 6 a -- a high risk of abuse and misuse --
- ⁷ abuse, misuse and diversion.
- Q. Is that a topic that's
- 9 similarly addressed in the package insert
- 10 as well?
- A. It is. Actually right from
- the -- in the very first paragraph,
- "Schedule II opioid substances which
- 14 include fentanyl have the highest
- potential for abuse and associated risk
- of fatal overdose due to respiratory
- depression. Fentanyl can be abused and
- is subject to criminal diversion."
- Q. Can you just explain quickly
- what that -- what is meant by "overdose"
- due to respiratory depression"?
- A. So the most serious adverse
- events of too high a concentration of
- opioids, they suppress respiration. So

- 1 you will -- with a high enough
- ² concentration, the patient will stop
- breathing. And if that isn't reversed
- 4 rather quickly the patient could sustain
- ⁵ brain injury or death.
- Q. And I take it that's the
- ⁷ principle reason why it's so important to
- 8 have a controlled and predictable dose in
- 9 the delivery system?
- A. Yes.
- 11 Q. Now, is there more
- discussion in the package insert around
- these issues of potential abuse and
- 14 potential overdose?
- A. Yes. Throughout the package
- insert these issues are reiterated. What
- 17 I've read to you for the most part is in
- the black box. So this is highlighted
- 19 for the treating physician, but similar
- 20 concepts are presented throughout the
- ²¹ package insert.
- Q. For example in the -- take a
- look at Page 10. There's a section
- titled Contraindications.

- ¹ A. Yes.
- Q. Can you explain what that
- 3 is?
- ⁴ A. So contraindications is an
- ⁵ absolute, do not give the drug to
- 6 patients who meet any of these criteria.
- ⁷ Q. And the first one is in
- 8 patients who are not opioid tolerant.
- ⁹ Can you explain that?
- 10 A. Yes. So the concept of
- tolerance is that patients who have
- 12 already been exposed to doses of opioids
- that would equate with a dose of
- 14 fentanyl. If you -- that you shouldn't
- be using fentanyl as the first opioid in
- an individual. The individual should
- have been exposed to other opioids before
- beginning treatment with fentanyl.
- Q. And what's the reason for
- that?
- A. Because there is a risk of
- the patient developing respiratory
- depression even with the first dose of
- fentanyl if they are not opioid tolerant.

- Q. Okay. The second one you
- ² spoke about earlier is acute pain. And
- then there's a reference for management
- ⁴ of postoperative -- postoperative pain.
- 5 Do you know the reason for that
- 6 contraindication?
- A. We were aware that there
- 8 were instances of misuse of the product
- ⁹ in treating patients with postoperative
- pain which would fall under the -- the
- 11 general category of acute pain. And
- there were adverse events and deaths
- associated with the use of the Duragesic
- patch in treating some of these
- individuals with postoperative pain.
- Q. And then the next two, we
- have mild pain and intermittent pain.
- ¹⁸ Can you explain those?
- 19 A. Yes. So even if you go back
- to the original studies, the original
- studies enrolled patients with moderate
- to severe pain. Mild pain can be managed
- with modalities other than a Schedule II
- long-acting opioid. So, therefore, you

- should be using other compounds to treat
- ² mild pain.
- Intermittent pain is not
- ⁴ pain that's around-the-clock that can be
- ⁵ generally managed with intermittent
- 6 dosing of other compounds or short-acting
- ⁷ opioids.
- 8 Q. Now, if you'll turn to the
- 9 next page you'll see there's a section
- entitled "Misuse, Abuse and Diversion of
- Opioids." And this is addressed to the
- 12 risks that you pointed out previously in
- the black box warning; is that correct?
- ¹⁴ A. Yes.
- Q. But gives a more thorough
- 16 discussion?
- A. Yes.
- Q. And then the next section on
- the next page, hypoventilation, that's
- another word for respiratory depression?
- ²¹ A. Yes.
- Q. So that's the risks of
- overdosing and essentially having your
- breathing stopped if you don't --

- A. If you don't reverse it
- ² quickly.
- Q. Now, I'm not going to go
- 4 through the whole thing, but I would like
- you to turn to Page 17. And this is a
- ⁶ reference to drug interactions. Can you
- ⁷ explain what that is?
- 8 A. So a physician should take a
- 9 careful history of other medications that
- a patient is on because, as with a lot of
- medications, concomitant medications may
- interact with the compound that you're
- prescribing, in this case with fentanyl.
- An example of that, there
- are other drugs that might be metabolized
- through the same system that metabolizes
- 17 fentanyl to inactive compounds. If
- you're taking such drugs, that may slow
- the metabolism of Duragesic and lead to
- concentrations that are higher than would
- be predicted if you didn't take those
- 22 concomitant medications.
- There are other medications
- that contribute physiologically to the

- effects of opioids that might lead to
- ² increased sedation or decreased
- ³ respiratory drive.
- Q. If you turn to Page 23, do
- you see there's a section entitled "Drug"
- 6 Abuse and Addiction"?
- ⁷ A. Yes.
- Q. And if you turn to Page 24,
- 9 another section entitled "Overdosage."
- A. Yes.
- Q. So this is giving the
- physician even more information on those
- 13 risks, correct?
- A. Correct.
- Q. And then under that it's
- "Dosage and Administration." Can you
- explain what that section is intended to
- 18 convey?
- A. Yes. So this is intended to
- instruct the healthcare provider, the
- 21 prescriber, in general principles of
- 22 prescribing opioid narcotics, especially
- ²³ Schedule II narcotics, but also in giving
- direction to how to select the dose of

- 1 Duragesic and how to monitor and change
- ² that dose as needed.
- Q. All right. Now, let's go
- back to Page 15. You'll see there's a
- ⁵ section entitled "Information For
- 6 Patients." What's the purpose of this
- ⁷ section?
- ⁸ A. The physician -- the
- 9 healthcare provider, the prescriber, is
- instructed on information that he or she
- should be providing to the patient to
- ensure that the drug is used safely and
- that it's -- to minimize any risk of
- diversion or access by someone other than
- the patient, how the patient is to store
- the drug and concerns about manners in
- which there might be an uncontrolled
- delivery or greater than expected
- delivery of fentanyl.
- Q. And can you give some
- 21 examples of that?
- A. Yes. So there's
- instruction. If you look on Page 16
- under 4. The patient should be

- instructed not to use the patch if the
- ² seal is broken, altered, cut in any way
- 3 because that defeats the
- 4 controlled-release of the product.
- In Number 5, we ask that the
- 6 patient be instructed not to -- to avoid
- 7 exposure to heat sources because
- 8 potentially heat sources could increase
- 9 the flux of fentanyl. And again, the
- patient would receive a greater than
- expected dose of fentanyl.
- They are instructed on how
- to dispose of the drug when they finish
- using it so as to minimize access by
- anyone other than the patient, and
- ultimately to fold the product and flush
- it down the toilet so that it isn't even
- ¹⁸ available in a waste basket.
- O. And is this information
- given directly to the patient as well in
- ²¹ written form?
- A. Yes. We also developed a
- patient medication guide so that much of
- this information is provided directly to

- the patient through the medication guide
- that the patient is to receive with each
- ³ and every refill of the prescription.
- O. Take a look at -- I think
- the numbering re-starts. It's after the
- end of the document, which is Page 33.
- ⁷ If you look at the page after that.
- 8 A. Yes, I have it.
- 9 Q. Can you tell us what that
- ¹⁰ is?
- 11 A. This is a patient
- information. So this is to be provided
- to the patient. It's written in an
- easier to understand -- in fact, it has
- to reach -- it has to be written to
- certain guidelines of understanding so
- that it's easy for the patient to
- understand. And it provides much of the
- same information about the appropriate
- use of the product and the appropriate
- storage and the appropriate disposition
- of the product.
- Q. And it also -- let's turn a
- few pages in, it gives the basic

- instructions as to how to actually put
- the patch on the skin, for example.
- A. That's correct.
- ⁴ Q. And this one is called
- ⁵ patient information sheet. You referred
- 6 to it as a patient information quide or
- 7 medication quide?
- 8 A. Medication guide. That was
- ⁹ the term that came to be used under the
- 10 formal REMS program.
- 11 Q. Now, did you have
- information at the company about how easy
- or difficult the patch was to abuse for
- somebody who would try to use it for
- nonmedical purposes?
- 16 A. There are various sources
- where we learned of the methods that
- would be tried to abuse and misuse and
- divert the product.
- Q. And what did you -- what did
- you generally learn? And we'll talk
- about first the reservoir patch, the one
- that was there when you came into the
- position.

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1
                 So among the -- or what we
           Α.
    learned that it was not an attractive
2
    formulation for abuse, misuse and
    diversion.
                It was rather difficult to
5
    use through a variety of sources, not the
6
    least of which was internet monitoring.
7
                  We understood that it was
8
    not a preferred route of delivery. Most
9
    addicts or individuals who sought the
10
    high from an opioid compound would seek a
11
           It was difficult to get a known
12
    quantity of the drug. And in fact, we
13
    learned that -- word on the street that
14
    we saw in some of the monitoring was that
15
    it was too great a risk for serious
16
    adverse events and even death.
17
                 So even -- even addicts
18
    would be worried about the risks they
19
    were taking with trying to use this as a
20
    drug of abuse?
21
                 MS. CONROY: Objection.
22
                  THE WITNESS: That was one
23
           of the things that we came to
2.4
           understand in the monitoring
```

- programs.
- ² BY MR. LIFLAND:
- Q. And can it be snorted like a
- 4 pill?
- ⁵ A. You can attempt to.
- Q. Is it easier or more
- 7 difficult?
- 8 A. It's more difficult to --
- ⁹ than you -- because you have fentanyl in
- an alcohol base and a gel base. It's
- difficult to snort or to smoke or to
- inject the compound.
- Q. At some point in time, the
- 14 company changed the way the patch was
- 15 formulated and went from the gel-based
- patch that we've been talking about where
- the fentanyl is dissolved in an alcohol
- gel, to what's called a matrix design.
- 19 Can you explain what that is?
- A. Yes. A matrix design would
- 21 almost be described as fentanyl in a
- solid formulation where the fentanyl is
- evenly distributed throughout the solid
- patch, not a liquid patch. You wouldn't

- see liquid as you would if you opened
- ² a -- the original fentanyl reservoir
- patch. This would be a solid piece of
- 4 patch.
- ⁵ Q. When did the company first
- 6 start looking at the matrix design for
- ⁷ the patch?
- 8 A. We looked at the matrix
- 9 design, I believe, around 2000.
- 0. And I take it there would be
- some advantages to the matrix design
- would be a reason to look at it, can you
- describe what those would be?
- A. Yes. For one thing it
- couldn't -- it couldn't leak. So one of
- the concerns around Duragesic was if you
- 17 cut the patch or if there were a problem
- with manufacturing, there could be
- 19 leakage of the fentanyl. That would not
- happen with a matrix.
- Q. And you said you first --
- the company first looked at it in 2001.
- Did the company decide to go forward with
- the matrix patch in 2001?

- A. Not in the United States.
- Q. And why not?
- A. We commissioned a -- a
- 4 review of the potential for abuse,
- ⁵ misuse, diversion with a matrix patch and
- 6 the experts that did that review
- 7 concluded that there were risks
- 8 associated with the matrix patch that
- ⁹ were not present with a reservoir patch
- and that those risks might lead to
- increased abuse, misuse and diversion.
- Q. And were those risks that
- the company had actually seen in people
- using the matrix patch?
- A. Yes, but to a fairly low
- degree.
- 0. And this is in 2001?
- ¹⁸ A. This is in 2000, 2001 --
- well, it's -- it's throughout the history
- of -- from 2000 on -- from 1999 on just
- based on adverse event reporting and
- ²² clinical trials.
- Q. And over the years did the
- company look further at the question of

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<sup>1</sup> the matrix patch as a possible
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- ² alternative formulation?
- A. Yes. In the United States
- we again commissioned, if you will, an
- ⁵ update to the 2001 report because we were
- 6 aware that there was potential for a
- ⁷ matrix patch to be marketed in the United
- 8 States and we asked whether the
- 9 conditions or the -- the knowledge base
- we had in 2001 was still relevant.
- 11 Q. Now, when you commissioned
- these reports, did the reports give you
- information about what was happening in
- the real world with abuse of the patch
- that you had, the reservoir patch?
- MS. CONROY: Objection.
- THE WITNESS: Yes, that
- was -- yes, that was part of the
- report. So the reports went back
- and looked at databases that would
- inform about the relative risks of
- abuse, misuse and diversion.
- 23 BY MR. LIFLAND:
- Q. And what information did

- ¹ they give you on that subject?
- ² A. That through both periods of
- time, 2001 up to 2004, the Duragesic was
- 4 not attractive as a drug of abuse, misuse
- 5 and diversion. And that the rates, at
- 6 least using the databases available at
- ⁷ that time, remained consistently lower
- 8 than other extended-release opioids.
- ⁹ Q. Now, at a certain point in
- time the company did change the design
- 11 and introduce the matrix patch in place
- of the reservoir patch; is that correct?
- A. That's correct.
- Q. Do you recall when that
- 15 happened?
- A. Well, the -- the drug was
- approved for marketing in 2009.
- Q. And did the company, before
- doing that, did the company look again at
- the issues around the potential
- 21 abusability of the matrix formulation as
- compared to the reservoir formulation?
- A. Yes, we did. So at that
- point, as I indicated, there was a matrix

- ¹ patch that had been marketed in the
- ² United States since 2005. Certainly at
- that time there were other matrix patches
- 4 that were on the market, but the first
- 5 matrix patch was marketed in 2005. And
- 6 so we had several years of data at that
- point in the 2008-2009 period to assess
- 8 relative rates of abuse, misuse and
- ⁹ diversion.
- 10 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-33.)
- 13 BY MR. LIFLAND:
- Q. So I'm going to mark as
- Exhibit 33, it's JAN-MS-02578637 through
- ¹⁶ 38.
- MS. CONROY: Thank you.
- 18 BY MR. LIFLAND:
- Q. A memorandum. It's entitled
- Review and Conclusion of the RADARS
- 21 Report Summarizing Abuse and Diversion
- Data For Transdermal Fentanyl Products in
- the United States. And it's signed on
- the second page by you, Bruce Moskovitz,

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<sup>1</sup> M.D.
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- A. Thank you.
- Q. Can you explain what this
- 4 document is?
- A. Give me a moment to look at
- 6 it.
- Yeah, so this -- this
- 8 summarizes the conclusion of the
- ⁹ surveillance programs that we had in
- place, certainly before 2005, but we were
- 11 looking at a comparison of the rates of
- abuse, misuse and diversion that might
- have occurred from the time that a matrix
- patch was available from 2005 on. And we
- looked at those rates through the various
- tracking systems that were subsumed under
- the, what was called RADARS, a number of
- 18 different streams of data. And we
- 19 concluded that through this period of
- time, approximately two to three years,
- the abuse and diversion of fentanyl
- 22 patches remained low relative to other
- opioids. And that there was no
- compelling evidence to suggest that the

- 1 matrix formulation was abused or diverted
- ² more than the reservoir formulations.
- At that time we concluded
- 4 that we could safely move from a
- ⁵ reservoir patch to a matrix patch in
- 6 conformance with what the FDA preferred
- ⁷ as the formulation.
- 8 O. Let me shift the focus a
- 9 little here. And again, let's talk about
- the issue of actions the company may have
- taken to encourage safe and effective use
- of the product and deter abuse and misuse
- of the patch. And now I'm talking about
- things beyond simply discussing the
- design of the patch and how that might be
- harder or easier to abuse.
- Can you -- can you describe
- 18 for me those, please?
- 19 A. Well, we --
- Q. And you might want to start
- with the package insert.
- A. Okay. So the package insert
- summarizes all of the pertinent
- information that a prescriber needs to

- ¹ appropriately select the patient. Get
- the medical history that would inform the
- treating physician. Whether there were
- 4 any contraindications or concomitant
- ⁵ medications that -- that he or she should
- ⁶ be aware of. Select the appropriate dose
- ⁷ based upon the opioids that the patient
- 8 had previously been exposed to. How to
- 9 monitor that patient -- well, how to
- inform the patient, first of all, at the
- time that you're prescribing the drug,
- about the appropriate use of the product,
- the appropriate precautions that the
- patient should be taking. Things that
- we've already spoken about, such as not
- exposing the patch to heat sources. How
- to properly dispose of the patch. And
- the type of monitoring that the physician
- might be doing with the patient.
- So we also instructed the
- 21 physician about how to monitor the
- patient over the course of his or her
- therapy to continue to assess that the
- benefits that the patient would be

- 1 getting from Duragesic would continue to
- outweigh the risks of the -- the product.
- Q. Okay. Well, let's -- let's
- break that down a little bit.
- ⁵ A. Okay.
- O. We looked at the -- at the
- ⁷ package insert initially. And the
- 8 initial thing we looked at was the
- 9 descriptions of the risks.
- So those are described here?
- A. Yes.
- Q. And then you mentioned
- patient selection, proper patient
- 14 selection?
- A. Correct.
- Q. You mentioned proper dosing?
- A. Correct.
- Q. And you mentioned patient
- 19 counseling?
- A. Correct.
- Q. And you mentioned proper
- monitoring?
- A. Correct.
- Q. So let's talk a little bit

- ¹ about each of those.
- Patient selection, I gather
- initially that's looking at the --
- 4 whether the patient fits the indication,
- 5 at least that's one aspect of it?
- A. Whether the patient fits the
- ⁷ indication and the patient doesn't have
- 8 any of the contraindications or any other
- 9 concerns, even though they may not be
- contraindications, other drugs that the
- patient may be taking that might alter
- their -- their mental state or that might
- increase certain risks for some of the
- adverse events. So it's not just those
- that are contraindications.
- Q. And proper dosing?
- A. Yes.
- Q. And that, I take it, is to
- ensure that the dose is -- to ensure that
- the dose is high enough for pain relief,
- but not so high that it places the
- patient in danger of hypoventilation?
- A. I would start off by saying
- that the dose is low enough --

- Q. Low enough.
- A. -- to begin with, so that
- you begin from a place where you are not
- ⁴ putting the patient at risk. And if
- ⁵ higher doses are needed to achieve
- analgesia, you have an opportunity to
- ⁷ increase those doses.
- 8 To -- there are tables in
- 9 here and aids to assist the patient in
- 10 choosing the proper dose of Duragesic
- based upon the opioid that the patient
- might be taking at the time he or she is
- transferred to Duragesic.
- Q. And you mean to assist -- I
- assume you meant to say assist the doctor
- in choosing?
- A. Yes. Assist the doctor in
- choosing the right dose based upon what
- the patient is taking at the time.
- Q. And that process of starting
- 21 at a lower dose and moving to the minimum
- that's needed, what is that called?
- A. Well, titration of the
- ²⁴ patient.

- Q. And then patient counseling.
- ² This is what you spoke about before in
- 3 terms of giving the patient the
- 4 information that they would need to
- ⁵ minimize the risk of -- of adverse
- 6 events?
- A. Yes, and counseling the
- 8 patient so that the patient is aware that
- 9 he or she shouldn't be treated with the
- drug if the treatment is for acute pain
- or for pain that's not continuous,
- 12 around-the-clock, persistent pain.
- Q. And proper monitoring,
- what's the importance of proper
- monitoring?
- A. Well, in a -- in a broad
- sense, the concept of patient management,
- especially with potent opioids, we would
- 19 look at four aspects of treatment.
- ²⁰ Analgesia, how well are you achieving the
- goal of pain reduction. I mean you're
- treating the patient with an analgesic.
- You want to reduce their pain.
- Adverse events, how well is

- ¹ the patient tolerating the drug. Are
- they experiencing -- and we expect that
- many of the patients, particularly early
- in the course of therapy, may have some
- 5 adverse events that may be tolerated or
- 6 may diminish over time. Commonly for
- opioids, those might be constipation,
- gastrointestinal adverse events, itching,
- ⁹ pruritis.
- Okay. So we spoke about
- analgesia and adverse events.
- 12 Activities of daily living,
- one of the things that we like to achieve
- with pain medication is not just a
- 15 reduction in pain but getting the patient
- back to those activities that might be
- important to him or her. And that has to
- be individualized to the patient, but
- it's a discussion that physicians should
- have. What does the patient want to do
- if we can relieve their pain?
- 22 And then elements that would
- help you determine whether there are
- behaviors associated with abuse and

- ¹ misuse and assess those as well.
- Q. Now, did you have data at
- Janssen that looked at the efficacy of
- 4 the products, if it -- if it was used
- ⁵ chronically, that is, over a longer term
- 6 course of therapy?
- ⁷ A. Yes.
- ⁸ Q. And can you describe what
- ⁹ those were?
- 10 A. So even going back to the
- original studies, and I'd have to
- 12 refer -- the efficacy assessment was made
- over a period of 30 days. But some of
- those patients were treated for extended
- periods of time where they continued to
- gain the benefits of pain management.
- 17 There are other studies that were
- subsequently conducted.
- And in a number of those
- studies, the treatment period extended to
- 21 a year or more. So we had a body of data
- that there were patients who would
- 23 continue to benefit from continued use of
- Duragesic, where they would have pain

- 1 relief and have tolerable side effects
- over a long period of time.
- Q. And because you have that
- 4 data, does that mean that a doctor can
- simply place a patient on the medication
- for a long period of time and, you know,
- ⁷ and set and forget?
- ⁸ A. No, of course not. The
- 9 risks associated with opioids are
- substantial. And, therefore, a physician
- has to monitor the patient on a regular
- basis, monitor the patient for analgesia,
- ¹³ adverse events, activities of daily
- living, and aberrant drug behaviors.
- By virtue of it being a
- Schedule II, you can't even call in the
- prescription. You have to see the
- patient on a regular basis. So we are
- 19 talking about a continual assessment
- of -- that the benefits of the medication
- 21 continue to outweigh the risks associated
- with opioid therapy.
- Q. For the particular patient?
- A. For that particular patient,

- ¹ yes.
- Q. And you mentioned quality of
- ³ life. Did the company have data on
- 4 quality of life from improvements from
- ⁵ opioid therapy with Duragesic?
- A. Yes, there were a number of
- ⁷ studies that included measures of quality
- 8 of life. There are a number of surveys,
- ⁹ there are a number of questionnaires and
- 10 assessments that the clinician or the
- investigator can administer that assess
- ¹² functionality and quality of life. And
- we included those in a number of our
- ¹⁴ investigations.
- Q. And what is the importance
- of monitoring -- I think the last thing
- you said was signs of aberrant behavior.
- A. As with other potent
- opioids, these are drugs that are used --
- abused, misused, diverted. So if a
- 21 patient was exhibiting aberrant
- behaviors, early refills, I lost the
- drug, there are a variety of known
- behaviors that are classified as aberrant

- drug behaviors that might suggest to the
- treating physician that he or she
- 3 carefully determined whether continued
- ⁴ use of the product is warranted. In some
- 5 cases it may very well be. But you may
- 6 need to put in place a more stringent
- ⁷ monitoring avenues.
- In some cases based upon
- ⁹ those aberrant behaviors, you may choose
- to decrease the dose or even stop the
- dose or to refer the patient to a pain
- specialist who has more experience in
- managing a patient who might exhibit
- these aberrant behaviors.
- Q. Are different patients at
- different risk for these kinds of adverse
- events?
- A. Yes. We saw that in
- multiple publications over the course of
- time. You can almost construct a
- hierarchy where an older patient who does
- not smoke, does not have history of
- alcohol abuse or abuse of other drugs,
- would have among the lowest likelihood of

- ¹ abuse, misuse and diversion, all the way
- to an individual who has pain that needs
- ³ to be treated, but that individual has a
- 4 history of substance abuse, alcoholism,
- 5 other drugs of -- with euphoric
- 6 capabilities, smoking, depression. There
- ⁷ are a number of high risk conditions that
- 8 would inform the treating physician that
- ⁹ this is a patient who is at greater risk
- 10 for issues of abuse, misuse and
- ¹¹ diversion.
- 0. And what would that counsel
- in terms of patient monitoring?
- A. That, again, would be
- individualized. So you would have to
- make a very careful assessment of the
- patient, of the starting dose. You might
- have a written agreement with the patient
- such that the patient would agree to have
- pill counts. The patient might agree to
- have urine testing on a regular basis.
- Again, going back to the
- very outset, you might choose to refer
- that patient to a pain specialist to have

- ¹ that individual who has much more
- ² expertise in treating high risk
- individuals, treat that patient, rather
- than primary care, if that's the -- what
- we're talking about. But -- or you might
- see the patient more frequently to assess
- ⁷ whether that patient continues to gain
- 8 the benefits of the drug and the
- 9 benefit-risk ratio remains.
- Q. We've already looked, I
- think, at the information on these topics
- that's provided in the package insert.
- Were there other vehicles
- that the company used to provide this
- kind of information to physicians?
- A. Yes. We supported
- educational programs that taught about
- appropriate prescribing, appropriate
- monitoring. We supported websites that
- spoke about how to manage patients with
- pain. We developed tools that a
- 22 physician could use to assess these
- 23 aspects of pain management and document
- the interaction with the patient.

```
1 Q. Let me show you a document.
```

- 2 It may take just a minute to find it
- ³ here.
- 4 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-34.)
- ⁷ BY MR. LIFLAND:
- 8 O. We marked this as
- ⁹ Exhibit 34.
- MS. CONROY: You are going
- to need it, right?
- MR. LIFLAND: I think we
- have a third one.
- MS. CONROY: You have --
- okay, great. Thank you.
- MR. LIFLAND: And I'll put
- it up on the screen.
- 18 BY MR. LIFLAND:
- Q. Can you tell me what this
- document is, Dr. Moskovitz?
- A. Yes. This is a report on a
- tool that was developed in part with
- the -- the work that was done internally
- 24 at Janssen to assess in relatively brief

- and straightforward way those elements
- that we just spoke of. Steve Passik, who
- is the lead author, had developed the
- 4 concept of -- of monitoring for the four
- ⁵ A's: Analgesia, pain relief, adverse
- 6 events, how well the patient tolerated
- ⁷ the drug, activities of daily living, and
- ⁸ aberrant drug use.
- 9 And this was a tool that was
- developed to help a physician assess
- those four areas of treatment and
- document them in a -- in a note with each
- ¹³ patient visit.
- Q. And is Janssen or a Janssen
- employee one of the authors on this?
- A. Actually two, there are two
- Janssen employees, Sheri Dodd and Jeffrey
- 18 Schein.
- O. And was this a tool that was
- provided to physicians so that they could
- use it for the patient monitoring that's
- ²² recommended?
- A. Yes, we -- we did provide
- it. Ultimately we had tear-off sheets so

- that it could be provided to prescribers
- ² as a -- as a tool to use in documenting
- the four A's of patient management with
- ⁴ an opioid.
- 5 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-35.)
- 8 BY MR. LIFLAND:
- 9 Q. And let me hand you another
- document. This will be Exhibit 35. And
- this is from the website of NIDA. And
- 12 you -- do you know what NIDA is?
- A. National Institute on Drug
- ¹⁴ Addiction.
- Q. And do you know what NIDA's
- ¹⁶ mission is?
- A. Yes. They're -- they're --
- 18 I couldn't give you it to you in exact
- unless I went to the website. But they
- want to develop scientific data that
- informs the scientific community, the
- treating community on issues related to
- public health abuse, misuse and issues of
- ²⁴ addiction. Scientifically based data

- ¹ that do that.
- Q. And -- and they have posted
- the PADT developed by Janssen as a tool
- 4 on their website?
- A. Yes. I don't know if we
- officially used the term "PADT." So the
- ⁷ tool that we were speaking about that
- 8 assessed these four A's of treatment was
- ⁹ called the Pain Assessment and
- Documentation Tool and was shortened to
- 11 the PADT.
- Q. And take -- take a look at
- the second page. That's what it's
- referred to at the top there?
- A. That's correct.
- Q. And let me just ask you, is
- this a validated tool? Can you explain
- what that is, or is it just -- something
- 19 short of that?
- A. It -- it was -- it was not
- validated in the sense that it could
- ²² actually predict whether by using the
- tool you could predict for issues of
- abuse, misuse and -- and diversion. But

- it was understood that one of the -- one
- of the requirements for appropriate
- patient care, particularly if you're
- ⁴ prescribing a scheduled product, is to
- 5 continue to document in your notes the
- 6 reasoning behind your decision to start a
- ⁷ patient on drug or your decision to make
- 8 any changes during the course of therapy
- ⁹ or to continue therapy. And this was a
- tool that was developed to assist with
- 11 that.
- 12 Q. Let me turn now to the
- subject of safety surveillance. Were you
- involved with safety surveillance of the
- Duragesic and other pain products at
- 16 Janssen?
- A. Yes.
- Q. And how did the company go
- about doing that?
- A. Well, safety surveillance
- 21 goes all the way back to designing a
- clinical trial that would assess benefits
- ²³ and risks in the clinical trials, adverse
- events. The -- after the drug is

- marketed there is a regulatory
- ² responsibility to report to the Food and
- 3 Drug Administration on a periodic basis,
- 4 more frequently initially, less
- ⁵ frequently later on, adverse events and
- events of particular interest.
- In the case of opioids, the
- 8 events of particular interest might be
- ⁹ such things as a respiratory depression,
- exposure, pediatric exposures, opioid
- ¹¹ naive exposures.
- But we also put in place
- other mechanisms for monitoring, for
- abuse, misuse and diversion, monitoring
- databases such as DAWN, TESS databases,
- of forensic laboratory databases,
- ¹⁷ internet databases.
- O. Let me -- let me --
- A. Sure.
- Q. Let me see if I can give you
- a document that will allow us to go
- through that a little bit more
- 23 systematically.
- I'm going to -- I'm

```
referring to Exhibit 28. It should be in
1
2
    your stack. It was marked earlier today.
3
                 I wish I was as good as you
    were about putting things in the --
5
                 MS. CONROY: I have one, I
6
           think, that does not have any
7
           writing on it, except for my
8
           Ex-28.
9
                 THE WITNESS: I think I have
10
                     Thank you.
           it here.
11
                 MS. CONROY: Okay.
12
    BY MR. LIFLAND:
13
                 Dr. Moskovitz, do you
14
    recognize this document?
15
                  I do.
           Α.
16
                 And you -- you referred to a
17
    number of surveillance measures.
18
    there come a time when Janssen pulled
19
    those together in something that was
20
    called a risk management plan?
21
           Α.
                 Yes.
22
                 And that occurred when?
           Ο.
23
                 Well, we had a formal risk
           Α.
```

management plan agreement with the FDA to

24

- 1 monitor these risks in approximately
- 2 2005, but we had a number of these
- screens in place even before 2005.
- Q. So this plan built on
- 5 monitoring the company had been doing
- 6 before that time?
- ⁷ A. Yes.
- Q. And some of the things you
- 9 described, the periodic adverse event
- 10 report review, for example, that's
- something that is required under FDA
- 12 regulations, it would have been done
- ¹³ since 1990?
- A. That's correct. That's
- 15 correct. There are regulatory
- 16 requirements over periodic reporting of
- ¹⁷ adverse events.
- Q. And you referred to the
- 19 reports that you had received from, for
- example Pinney Associates, which looked
- at, among other things, the -- the degree
- to which the company had seen abuse of
- the patch that the company had at that
- 24 time in 2001?

- A. Correct. As part of his
- ² assessment of relative risks of abuse, he
- 3 reviewed available data around
- 4 information on abuse of the Duragesic
- 5 patch up to that point.
- Q. And this document that we
- ⁷ have in front of us is a presentation
- 8 from 2007?
- A. I -- yes, that's the date on
- the front page.
- Q. And you are listed as the
- presenter; is that correct?
- A. Correct.
- Q. And this gives an overview
- of -- well, you tell me generally what's
- the overview here?
- A. An overview of the
- 18 activities within the medical affairs
- 19 group to monitor for the safety of our
- pain products. But the risk management
- plan in general, how we go about
- collecting the various streams that would
- inform us on the safety of our product
- and -- and the process by which we review

- ¹ those data internally and externally.
- Q. And further down the
- document, is there a description of the
- ⁴ Duragesic risk management plan in
- ⁵ particular?
- ⁶ A. Yes. There is no page
- ⁷ number, but there is a slide that's
- 8 labeled Duragesic (opioid risk management
- 9 plan).
- Q. And that would be the plan
- that was in effect in or around 2007 --
- A. Yes.
- Q. -- at the time you gave that
- ¹⁴ presentation?
- A. Yes. It's a -- it's an
- overview of that plan.
- Q. And I take it those plans
- 18 evolved over time. You mentioned that in
- 19 2005 you -- you had an agreement with the
- FDA to formalize this; is that right?
- ²¹ A. Yes.
- Q. And then did it change over
- time as the years went on?
- A. It did. We've spoken

- 1 already about how the risk management
- ² plan ultimately evolved into a REMS
- ³ program, and into -- into a
- 4 consortiumwide surveillance program.
- ⁵ Q. All right. Well, let's take
- 6 a quick look at some of the slides,
- ⁷ starting with the ones that deal with
- 8 risk management generally.
- ⁹ A. So that's towards the
- beginning of the document.
- 11 Q. That's the beginning of the
- 12 plan.
- A. Okay.
- Q. Now, you have a -- initial
- subscribe -- describes the FDA regulatory
- system, and then you have the question,
- "But how safe is safe?"
- What is -- what is the point
- that you're making there?
- A. All drugs have risks
- 21 associated with them. Every drug has
- adverse events, and you have to assess
- those risks against the potential
- benefits to determine whether to

- prescribe or to continue a drug for a
- ² specific patient.
- Q. All right. If you turn to
- the next page, there's a section on
- ⁵ limitations of clinical trials. And I
- take it your point here is that there are
- ⁷ limitations of clinical trials on the
- 8 subject of assessing risk. Can you
- 9 describe what those are and what you're
- conveying in this slide?
- A. Yes. Absolutely. So
- 12 clinical trials are conducted in a highly
- controlled environment. There are clear
- selection criteria, inclusion/exclusion
- ¹⁵ criteria in a clinical criteria.
- So by virtue of that highly
- 17 controlled environment there are
- 18 limitations on the full picture of safety
- and efficacy that you might ultimately
- develop with a drug.
- It's been well noted that
- even large clinical trials would have
- difficulty in determining adverse events
- that -- that might be serious but that

- ¹ are seen at a very low incidence in the
- ² general population. That's one of the
- ³ limitations on a clinical trial.
- 4 You're also limited in the
- ⁵ patient population you're seeing. So you
- 6 might want -- you might need to develop
- ⁷ more data around an elderly population.
- 8 We certainly know of doing separate
- ⁹ studies in a pediatric population. Those
- would not necessarily be answered with
- the initial clinical trials.
- Q. If you'll turn to the next
- one. This refers to quidance for
- 14 industry. What quidance is that
- 15 referring to?
- A. The FDA published in the
- 17 federal register a guidance around risk
- management.
- Q. And that came out in 2005?
- A. Yes.
- O. And that was one of the
- reasons for systematizing this risk
- management plan, I take it?
- A. That's correct.

```
Q. Let's move on to -- you can
```

- skip the next slide and go to the slide
- entitled "Goals of a Risk Management"
- 4 Program."
- What's the point that you're
- 6 making in this slide?
- A. So to the extent possible,
- 8 we want to -- when I say optimize the
- benefit-risk ratio, so by optimizing a
- ratio, you can either increase the
- positive aspect, the efficacy of the
- drug, or you can minimize the risks. So
- if you can identify the risks and take
- steps to minimize those risks, that works
- towards optimizing that benefit-risk
- 16 ratio.
- 0. And the next slide is
- entitled "the process of risk"
- management." Can you explain that one?
- A. Going back to what I just
- spoke about. So understand what the
- risks are associated with your product
- and develop tools so that you can
- minimize those risks. And those tools

- might be education, education for the
- ² healthcare provider, education for the
- ³ patient.
- 4 And as you -- and over time
- you may need to change those.
- ⁶ Q. Is that what Janssen is
- ⁷ trying to do with the risk management
- 8 plan for Duragesic?
- ⁹ A. Yes.
- O. Next slide is "Tools." Can
- you comment on that one, please.
- 12 A. Yes. These are -- these are
- methodologies that might be employed.
- 14 I'm not saying necessarily for Duragesic.
- But these are some of the tools that
- 16 could be used to minimize risks
- 17 associated with a product, not just an
- opioid.
- We've spoken about education
- ²⁰ and training for the healthcare providers
- ²¹ and educating patients.
- Just looking at a number of
- these, you might restrict the setting in
- which the drug might be used so that it

- would be only within a hospital setting.
- You might require that
- patients register before they could use
- 4 the drug or that -- or limit it to
- ⁵ certain types of physicians.
- Again, this goes across all
- ⁷ drugs where you are considering a risk
- 8 management plan.
- 9 Q. And in the next slide you
- have "Evaluating the Plan." And it
- speaks of criteria for success, signals,
- strategies for intervention. Can you
- explain what signals and strategies for
- 14 interventions are?
- A. We would put in surveillance
- mechanisms that would help us assess the
- identified risks, primarily risks of
- abuse, misuse and diversion, but
- 19 certainly the adverse events that we've
- spoken of, that were common for opioids.
- And how we would go about
- collecting data on the incidence of those
- risks and what would constitute a signal
- where we might need additional

- intervention or more information.
- O. And what kind of
- intervention might that be?
- A. Interventions might be
- ⁵ changes in our educational material,
- 6 changes in the package insert. It might
- ⁷ be, in the case of a surveillance
- 8 program, sending someone out or getting
- 9 more information about what's going on in
- a particular geographic area to
- understand the background behind what we
- may be seeing in the surveillance
- program.
- Q. All right. Your
- presentation goes on to give another --
- some examples involving another drug.
- Let's go, move forward to the discussion
- now of Duragesic risk management plan.
- And if you turn to the first
- slide there, that's a -- I guess a
- 21 graphic representation of the way the
- 22 plan was organized. Can you just give a
- quick summary of what that's supposed to
- depict?

1 Yes. We've spoken about Α. 2 risks and we -- starting with the understood risks or perceived risks of a medication, we assess the risks and what 5 tools we have to manage the risk. 6 The assessment would be a 7 variety of data. That might include, in 8 the case of opioids, abuse liability studies, epidemiology, in vitro studies, 10 and then ways in which we could manage 11 those risks. 12 Managing those risks could 13 entail things that we've already spoken 14 of, appropriate labeling so that the 15 risks are properly conveyed to the 16 healthcare provider who's prescribing the 17 drug; education, both to the healthcare 18 provider and the treating community, 19 activities around launch and promotion of 20 these risks are continued to be brought 21 to the physicians' attention about the 22 proper patient selection and monitoring; 23

surveillance, we've spoken about the

streams of data that come into us that

24

- 1 look at issues around abuse, misuse and
- diversion; supply chain management, which
- we've spoken about; manufacturing which
- ⁴ we've spoken about.
- ⁵ Q. So under surveillance,
- there's two categories, one is routine or
- ⁷ passive and the other is active. Can you
- 8 explain the difference between those two?
- ⁹ A. Routine, passive, for the
- most part these are the adverse event
- 11 reports that come into the company.
- We're not going out and soliciting them.
- 13 Maybe in the case of a clinical trial we
- might be. But these are adverse events
- that are reported to us, passive in that
- 16 respect -- in that respect.
- Active being that we are
- ¹⁸ actively supporting surveillance to
- understand what -- how the drugs are
- being used in the community and whether
- there are issues around abuse, misuse and
- ²² diversion.
- Q. All right. So what were
- the -- what were the passive surveillance

```
1
    tools that Janssen had available for
2
    Duragesic?
3
           A. Adverse event reporting
    would be the primary one, yeah.
5
                  MR. LIFLAND: Let's take a
6
           look at one of the progress
7
           reports.
8
                  Does anyone need a break or
9
           are we good?
10
                  MS. CONROY: Fine.
11
                  MR. LIFLAND: I'd like to
12
           mark as the next, Exhibit Number
13
           36.
14
                  (Document marked for
15
           identification as Exhibit
16
           Janssen-Moskovitz-36.)
17
                  MR. LIFLAND: The document
18
           begins with Bates number
           JAN-MS-00213785, and ends with --
19
20
           oh, I'm sorry, that's -- that's
21
           the number. It's a native file
22
           provided.
23
    BY MR. LIFLAND:
24
                 Doctor, can you look at the
           Q.
```

- title page of this document and tell us
- ² what it is?
- A. The Duragesic first annual
- 4 progress report. This is part of the
- ⁵ periodic safety update that was required
- to be filed with the Food and Drug
- ⁷ Administration.
- 8 Q. So this is a report that's
- ⁹ prepared under the risk management plan,
- the first one, in fact?
- A. It's part of our
- 12 responsibility to report adverse events
- and -- and the -- and the risk management
- 14 activities that we agreed to provide.
- Q. And the issue date is listed
- there as the 5th of June, 2007?
- ¹⁷ A. Yes.
- MR. RODRIGUEZ: What exhibit
- number are we on?
- MR. LIFLAND: Oh, I'm sorry.
- MS. CONROY: I'm sure he
- said it, I just missed it. I'll
- go back --
- MR. LIFLAND: 36.

- MS. CONROY: Thank you.
- ² BY MR. LIFLAND:
- ³ Q. So if you turn to the table
- of contents you'll see how the report is
- ⁵ structured, correct?
- A. Correct.
- ⁷ Q. It gives you a description
- 8 of what the risk management plan is?
- ⁹ A. Yes.
- Q. And what it's looking at?
- A. Yes.
- 12 Q. In Section 2, or 1 is the
- introduction and the background explains
- ¹⁴ it?
- A. That's correct.
- Q. And then Section 3 goes
- through all the elements of the plan and
- what the -- what the findings are for
- this reporting period; is that correct?
- A. Yes.
- Q. All right. And if you turn
- to Page 12, there's a summary.
- A. Executive summary, yes.
- Q. And the first thing after

- the introduction is what's referred to as
- ² pharmacovigilance plan?
- ³ A. Yes.
- 4 O. And that I take it is what's
- ⁵ referred to as the passive monitoring or
- ⁶ the passive surveillance?
- ⁷ A. Yes.
- 8 Excuse me.
- ⁹ Q. And the next page describes
- the elements of that. The first one is
- 11 review of the SCEPTRE database.
- A. Yes.
- O. You described the SCEPTRE
- 14 database?
- 15 A. That was the adverse event
- 16 reporting database that -- to which we
- entered all reports of adverse events on
- ¹⁸ a worldwide basis.
- Q. So when you say on a
- worldwide basis, there were other
- countries in the world in which Janssen
- sold fentanyl patches?
- A. Yes.
- Q. And so this would compile

- adverse events not just from the United
- ² States?
- A. That's correct.
- Q. And those would be analyzed
- 5 as the first part of the surveillance?
- ⁶ A. Yes.
- ⁷ Q. And then the second is,
- 8 underneath that the FDA SRS/AERS
- ⁹ database. What is that?
- 10 A. The FDA also had a database
- of adverse events if a healthcare --
- 12 healthcare provider or a patient might
- 13 report to the FDA and not report to the
- company. So there was an attempt to
- share the databases so that we had
- similar information that we were working
- with.
- Q. Okay. So the first step in
- this place is to do a review of all of
- the FDA's adverse events and --
- A. And -- FDA and our adverse
- events.
- O. And then all of the
- company's adverse events that it's

- learned about worldwide?
- A. Correct.
- Q. Okay. And the next listed
- 4 under here is review of the drug abuse
- warning network, DAWN.
- 6 Can you explain what that
- ⁷ is?
- 8 A. It collects data on
- 9 emergency department visits for a variety
- of drugs, I mean, but emergency
- department visits which are related to
- ¹² drug intake.
- 0. And what information does
- that provide relating to abuse, misuse?
- A. That in the most serious
- cases, if the intake of a drug led to the
- need to present the patient to an
- emergency room, we would have information
- on the drugs that were used that led to
- that emergency room admission.
- O. And is that -- who -- who
- ²² puts together that data?
- A. There's a separate database
- that's maintained by the DAWN group. I

- don't recall exactly how it is
- ² constructed.
- ³ Q. Is it a government database?
- ⁴ A. It is.
- 5 O. Federal domain?
- ⁶ A. Yes.
- ⁷ O. And then the next on the
- 8 list is review of IMS Health LRx
- 9 database. Can you explain how that's
- used in the risk management plan?
- A. Well, this helps us
- determine patient exposure to Duragesic
- ¹³ and other compounds.
- Q. So it would give you a
- baseline of exposure that you could
- ¹⁶ then --
- A. How many prescriptions were
- written and how many patients received
- 19 the drug.
- Q. All right. Then we have a
- reference to Poison Control Center data.
- 22 And is this -- are we now moving into the
- ²³ area of active surveillance?
- A. Yes. These were streams

- that we contracted to receive from the
- ² Poison Control Centers.
- ³ Q. And have you heard of
- 4 RADARS?
- ⁵ A. Yes.
- 6 Q. And can you tell us what
- ⁷ that stands for?
- 8 A. Research, abuse -- I'd have
- ⁹ to go back on the exact acronym.
- Q. It's referred to on the
- 11 next -- the next page here. Explain what
- ¹² it is.
- A. Well, there are a number
- of -- of surveillance programs that fall
- under RADARS. But they -- they monitor
- 16 for streams of -- that would help to
- detect abuse, misuse and diversion.
- Q. And then there's a reference
- to National Forensic Laboratory
- ²⁰ Information System.
- What's that?
- A. In instances where samples
- might be submitted to a laboratory to
- determine what the cause of death was or

- if there was an adverse event, they would
- 2 have a database that they would be able
- 3 to determine what the drug was that was
- 4 used when it came to the attention of the
- ⁵ laboratory.
- ⁶ Q. Further down the page is a
- ⁷ reference to supplemental RADARS program
- 8 from the RADARS system.
- 9 Can you explain what that
- ¹⁰ is?
- A. We have the opportunity
- to -- to be a little bit more granular
- with the data that RADARS provides and to
- get down to a three-digit zip code level.
- 15 That's the supplementary data.
- It -- so it -- the elements
- of that would include drug diversion
- network, key informant network, opioid
- dependence treatment network.
- Q. What's a key informant
- 21 network?
- A. There were individuals in
- various geographic locations throughout
- the country who had their ear to the

- 1 ground around issues of abuse, misuse,
- diversion, particularly for an illicit
- ³ drug that might be coming into the area,
- ⁴ and they would help inform what was going
- 5 on.
- Q. And then finally, there's a
- ⁷ reference, at the top of the next page to
- 8 supplementary internet media monitoring
- 9 programs?
- A. Yes.
- Q. Explain what that is.
- 12 A. So we would monitor, or we
- would contract with a group that would
- monitor -- there were sites that were
- well known to drug users, abusers on the
- internet where they would talk about
- their experiences using drugs, what gave
- them the high, how easy it was to obtain
- 19 the drug -- excuse me.
- And we were monitoring
- those -- these internet sites to gain an
- understanding of, especially over time,
- what the interest in particular drugs,
- particular formulations might be.

```
1
                  MR. LIFLAND: Maybe we
2
           should take a quick break. I
3
           think it sounds like you need some
           water.
5
                  THE WITNESS: If you don't
6
           mind. Thank you.
7
                  THE VIDEOGRAPHER: All
8
           right. Remove your microphones.
9
           The time is 5:20 p.m. Going off
10
           the record.
11
                  (Short break.)
12
                  THE VIDEOGRAPHER: We are
13
           back on the record. The time is
14
           5:29 p.m.
15
    BY MR. LIFLAND:
16
                 Dr. Moskovitz, can you turn
17
    to Page 29 of the progress report, risk
18
    management plan progress report that
19
    we've been discussing.
20
                  THE VIDEOGRAPHER: Your
21
           microphone.
22
                  THE WITNESS: Mine too.
23
           Sorry.
                  MR. LIFLAND: All three of
24
```

```
1
           us.
2
                  MS. CONROY: Yeah.
    BY MR. LIFLAND:
4
                  Dr. Moskovitz, could you
5
    please turn to Page 29 of the risk
6
    management plan progress report that
7
    we've been discussing.
8
           Α.
                  Yes.
9
                  And the two headings on this
    page refer to cumulative reviews of
10
11
    information from the company's adverse
12
    event database that the company
13
    performed. Do you see those?
14
                  Yes, I do.
           Α.
15
                  And is that something that
           Ο.
16
    the company would do periodically from
17
    time to time if a question came up?
18
           Α.
                  Yes.
19
                  And can you tell us what the
    first one of those is?
20
21
           Α.
                  2.6.4?
22
           0.
                  2.6.4.
23
                  Iatrogenic addiction,
           Α.
```

addiction that -- that from -- was an

24

- outcome of prescribing of Duragesic. So
- it was a review of cases of addiction
- associated with prescriptions of
- ⁴ addiction -- of Duragesic.
- ⁵ Q. So these would be patients
- 6 who had received a prescription and
- ⁷ become addicted?
- 8 A. That is my understanding.
- 9 MR. LIFLAND: Have we got
- the -- I'm going to hand you
- another document on this topic.
- We'll mark it as -- are we on 37?
- 13 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-37.)
- THE WITNESS: Do you want me
- to keep this here?
- 18 BY MR. LIFLAND:
- Q. Yeah, you can keep it there.
- We're going to come back to both of
- those. I just want to review this.
- ²² A. Okay.
- Q. Can you read the title of
- this document.

- A. "Cumulative Review of
- ² Iatrogenic Addiction Associated With the
- ³ Use of Transdermal Duragesic Fentanyl
- 4 Patch."
- ⁵ Q. And is this a report of that
- 6 review that's referred to here in the
- 7 risk management plan that we just
- 8 discussed?
- ⁹ A. By the dates, it would
- appear to be, yes.
- 11 Q. And can you just take a
- moment to look at it and then describe
- what the review was?
- A. So going through the
- database, based upon the -- our database,
- we reviewed all cases that would be
- suggestive of iatrogenic addiction
- reported to the company with the use of
- the transdermal fentanyl patch.
- Q. And for what period of time
- would this cover?
- A. Without seeing specifically
- the timeline, I would assume this would
- be over the entire course of the

- ¹ marketing for Duragesic. That is to say,
- ² from 1990 on.
- Q. Does it cover just the
- ⁴ United States or is it worldwide?
- ⁵ A. This is a worldwide
- 6 database.
- Q. All right. So it's your
- 8 understanding that -- then that this is a
- 9 review of cases reported worldwide, of
- all the cases that have been reported to
- the company on cases of what might be
- suggestive of iatrogenic addiction with
- Duragesic patients on Duragesic?
- A. Correct.
- 0. Or the international
- versions of it?
- A. Correct.
- Q. And can you take a look at
- the conclusion of the -- well, let me
- start. Is there -- is there a discussion
- of the exposure to Duragesic that the
- period of time that these cases are drawn
- ²³ from --
- ²⁴ A. Yes.

- Q. -- corresponds to?
- ² A. Yes.
- ³ Q. Page 9?
- A. Yes. I'm looking at Page 9.
- 5 And thank you, that helps me determine,
- 6 so that it is, in fact, from launch
- ⁷ through June 2005.
- Q. And what's the -- what's the
- ⁹ amount of exposure that's shown there?
- 10 A. Well, overall in terms of
- patient days, it would be 1,611,000 --
- more than a billion patient days.
- Q. So it's approximately 1.1
- billion 600 thousand --
- A. 1,611,158,440.
- Q. Okay. But that's
- 1.6 billion roughly?
- 1.6 billion roughly, yes.
- Q. And what is a patient day?
- A. A patient day would be one
- day of exposure of a patient to the
- ²² Duragesic patch.
- Q. And if you look at the
- conclusion of -- well, just take a look

- ¹ at the results of the conclusion and
- ² maybe you can summarize what the finding
- was based on this review.
- ⁴ A. That iatrogenic addiction
- ⁵ was very rare.
- 6 Q. How many cases did they
- ⁷ find?
- 8 A. They found 103 cases during
- ⁹ this -- over that period of time.
- Q. All right. If you go back
- to the previous document, which is
- 12 Exhibit 36 I think.
- 13 A. Yes.
- Q. And you'll see underneath
- the reference to that study we just saw,
- or that review that we just discussed is
- another cumulative review of death cases
- with the fentanyl transdermal system.
- Do you see that?
- A. Yes.
- Q. And -- and do you recall
- that review?
- A. Yes.
- Q. Can you explain how that

- 1 came about and what the result was?
- A. So there was an FDA Public
- ³ Health Advisory around issues of misuse
- ⁴ of the Duragesic patch and deaths. And
- we had a -- the global regulatory had a
- 6 request from the German health
- ⁷ authorities to analyze all cases of
- ⁸ Duragesic use where the outcome was death
- ⁹ that was reported to the company.
- Q. And probably there's enough
- here, if you look at the next page, you
- can see the rest of the description of
- 13 that. Can you -- does this tell you what
- the results of that review was?
- 15 A. That most of the cases of
- death were expected deaths because the
- drug was used in end-of-life conditions,
- and that there was no increase, in a
- trend in increase in reporting rates of
- death between the year 2000 and 2005.
- Q. And when you say expected
- deaths, you're referring to a situation
- where for example, a person might be
- taking Duragesic to relieve pain from

- terminal cancer and they die while they
- ² are on the -- on the medicine, but the
- 3 cause of death is not the medicine, it's
- 4 the cancer. Is that what you're
- ⁵ referring to as an expected death?
- A. That's correct, where the
- ⁷ reporter did not attribute the death to
- 8 the Duragesic patch.
- 9 Q. And again the conclusion
- with respect to deaths that did not fall
- into category -- into that category, was
- 12 what?
- 13 A. That we didn't -- that there
- was no trend to suggest an increase in
- the death rate, and, therefore, the --
- the core data sheet adequately describes
- those risks, the risk of death with the
- ¹⁸ drug.
- 0. And what's the core data
- sheet?
- A. The company core data sheet
- is a worldwide document that contains all
- the information about the drug. And
- based upon the company core data sheet,

- ¹ the individual package inserts would be
- ² harmonized to the company core data
- sheets. There might be differences from
- one region to another. But it contains
- ⁵ the -- the fundamental information that
- 6 has to be included in all package
- ⁷ inserts.
- ⁸ Q. Let's go back to the slide
- 9 presentation on the risk management plan.
- 10 I think it will be easier to use this
- document just to walk through the last
- 12 few pieces of it.
- A. Okay.
- Q. And what I'd like to do is,
- let's move forward to the sections of the
- document that report on the findings of
- the data, the data from the latest plan.
- 18 It gives some examples.
- So if you can turn to the
- 20 page that says, "Passive Surveillance:
- Data" -- "Databases routinely surveyed."
- A. Yes.
- Q. And those are some of the
- ones -- well, let's go back to the prior

- page. There's a reference to routine
- ² surveillance. That's the SCEPTRE and
- the -- and the FDA AERS that we talked
- 4 about --
- ⁵ A. Yes.
- 6 Q. -- right?
- ⁷ A. Yes.
- ⁸ Q. And then the next page
- 9 refers to some of the other passive
- surveillance databases. The DAWN
- database that you mentioned.
- 12 A. There's additional streams
- of data that we were collecting about
- specific issues of abuse, misuse,
- diversion, of fentanyl and other
- products.
- Q. Right. So DAWN was the
- emergency room mentions?
- A. Yes.
- Q. And there's a reference to
- toxic exposure surveillance system,
- abbreviated TESS. What's that?
- A. I'd have to go to another
- document to refresh my memory about what

- ¹ TESS was.
- O. Poison control?
- A. Well, since poison control
- 4 isn't listed over here and I know that we
- ⁵ did it, my assumption is that that's what
- it's referring to.
- ⁷ O. And then the National
- 8 Forensic Laboratory Information Service
- 9 we talked about, right?
- A. Yes.
- 0. And the IMS database?
- 12 A. Database that helped us
- 13 assess exposure.
- Q. And the next page actually
- has a table that lists what aspects of
- what you're surveying, what you're
- 17 looking for, each of these databases
- would give you information about,
- that's -- is that correct?
- A. That's correct.
- Q. So for diversion, you have
- information from the J&J SCEPTRE, from
- the FDA, and from the National Forensic
- Labs?

```
1
                 Yes.
           Α.
                 For misuse -- well, the J&J
2
           0.
    SCEPTRE and the FDA covers information on
    all of these adverse --
5
                 All of those --
           Α.
6
                 -- abuse, overdose, misuse,
           0.
7
    diversion, other adverse events, correct?
8
                 Adverse events of interest.
           Α.
9
                 Right.
           0.
10
                 That's correct.
           Α.
11
                 And then TESS speaks to
           0.
12
    abuse, overdose and misuse?
13
           Α.
                 Yes.
14
                 NFLIS, diversion?
           0.
15
                 Diversion.
           Α.
16
                IMS?
           Q.
17
           A. Misuse.
18
                 Misuse.
           0.
19
                 And then DAWN would be?
20
                 Overdose and abuse.
           Α.
21
                 And then if you go to the
           0.
22
    next page we get into the active
23
    surveillance tools, correct?
24
           Α.
             Correct.
```

- Q. It starts off with RADARS?
- ² A. Yes.
- Q. It still doesn't say what
- 4 RADARS stands for, but I assume we'll --
- 5 at some point, we'll come across that.
- 6 And --
- A. It's research, abuse.
- 8 That's definitely the R and A --
- ⁹ diversion activities. I --
- Q. Let me -- let me ask you the
- 11 question. Who ran RADARS?
- A. Well, initially it was the
- 13 Rocky Mountain Control Group that -- Rick
- 14 Dart's group in Colorado ran RADARS.
- Q. So that was an independent
- qroup of experts who set up this
- surveillance network?
- A. That's correct.
- Q. And it lists here four
- 20 different networks?
- A. Yes.
- Q. So within RADARS you had the
- four different sources that you could
- look to for different kinds of data that

- speak to the questions you're looking
- ² for?
- A. Yes. Four different streams
- ⁴ of information that came in.
- Okay. And let's look at the
- ⁶ first one. This is key informant data.
- ⁷ This is one of the RADARS data streams I
- 8 take it?
- ⁹ A. Yes.
- Q. And can you describe again
- ¹¹ what that is?
- 12 A. There -- there were
- individuals in geographic areas
- throughout the country who would alert
- the company to -- well, alert RADARS
- about issues of abuse, misuse of -- and
- diversion of a variety of compounds
- within their geographic area.
- Q. And this particular table is
- showing their data from 2002 through the
- first part of 2005; is that correct?
- A. That's correct.
- Q. It lists the number of cases
- that are reported out of this key

```
enforcement network --
1
2
                  Informant.
           Α.
3
                  -- informant network --
           Ο.
           Α.
                  Yes.
5
                  -- for a bunch of different
           Ο.
6
    opioids, correct?
7
           Α.
                  Yes.
8
                  And fentanyl is one of them,
           Ο.
9
    correct?
10
           Α.
                 Yes.
11
                  Is that Duragesic only?
           Q.
12
                  No. This would be any
           Α.
13
    mention of fentanyl.
14
                  So it could be Duragesic in
           O.
15
    part?
16
                  It could be Duragesic.
           Α.
                                           Ιt
17
    could be --
18
                 What else could it be?
19
                  It could be another
           Α.
20
    formulation of Duragesic, including at
21
    this time the buccal formulations of
22
    fentanyl.
23
           Q. Right. You said another
24
    formulation of Duragesic.
```

- ¹ A. I'm sorry. Another
- formulation of fentanyl, which could
- include the buccal formulations. Actiq
- was one that was -- by brand name.
- ⁵ Q. And just for my benefit,
- 6 what does buccal mean?
- A. Oh, it's placed in the mouth
- 8 sublingually so that you have a rapid
- 9 absorption of the fentanyl.
- Q. So it's a lozenge that you
- place under your tongue, and it's
- absorbed that way?
- A. Absorbed quickly.
- Q. So that was a product by
- another company -- marketed by another
- 16 company. It was another fentanyl
- product.
- 18 A. Yes.
- Q. And could these mentions be
- ²⁰ anything else?
- A. It could be illicit fentanyl
- mentions as well.
- Q. So all of those would be
- combined in the fentanyl line in this

```
<sup>1</sup> data?
```

- ² A. Yes.
- Q. Okay. Can you see which
- 4 line here is the fentanyl line?
- 5 A. Yes. Thankfully it's in
- 6 color. The green line represents the
- ⁷ fentanyl cases.
- ⁸ Q. So, and I know it's a little
- 9 hard to see. But if I point to it with
- my pen, it's this green line right here
- 11 that -- it looks like for most of this
- period, it's close to the bottom.
- 13 There's one that, it looks like
- buprenorphine is a little bit lower?
- A. Yeah, it's the lowest or
- second lowest except for one data point
- before all the other data points.
- Q. And it's considerably lower
- than the data points for the other
- product, at least some of the other
- 21 products mentioned, really all of them
- except for that one that's lower,
- correct?
- A. That's correct.

- Q. All right. Let's go to the
- next slide. This is the law enforcement
- ³ network data, drug diversion total
- 4 mentions 2000, 2004. And this is another
- ⁵ RADARS resource, correct?
- 6 A. Correct. Seizures of
- ⁷ medications that may have been illicitly
- 8 diverted outside the normal prescription
- 9 stream.
- Q. And again, fentanyl is the
- 11 green line?
- A. Yes.
- Q. And fentanyl here could
- 14 include --
- A. Hold on. Hold on. Fentanyl
- is the dark green line here. Diazepam is
- 17 also green, but fentanyl is a darker
- ¹⁸ green.
- 0. Okay. Dark green with the
- triangles. And -- well, I'll take a
- minute.
- A. And again, fentanyl is among
- the lowest mentioned.
- Q. And just to confirm, would

- the same be true that fentanyl on this
- ² chart would include not only any mentions
- that they found for the Duragesic patch,
- 4 but also illegal fentanyl, which could
- bave been seized by law enforcement?
- A. And other formulations of
- ⁷ fentanyl. That's my understanding.
- 8 O. Let's look at the next
- 9 chart. This is AATOD report. Maybe we
- can go back and refresh on what that
- 11 stands for. American Association For the
- 12 Treatment of Opioid Dependence?
- 13 A. It's my understanding that
- this is a database for patients who were
- admitted to methadone treatment programs,
- and they would report on the drug that
- they had taken -- abused most recently
- during the prior month, prior to their
- admission to the methadone treatment
- program.
- 0. All right. If we look at
- this chart, the top one is heroin?
- ²³ A. Yes.
- Q. And then next we have some

- of the more commonly prescribed opioid
- ² pills?
- ³ A. Yes.
- Q. And where is fentanyl on the
- ⁵ chart?
- 6 A. It's the third from the
- ⁷ bottom.
- 8 O. So it's this one that I'm
- ⁹ pointing to right now?
- A. Yes.
- Q. Okay. And again, those
- would include Duragesic, any other forms
- of fentanyl altogether, correct?
- A. Again, that's my
- understanding, yes.
- Q. Now, taking a look at this
- chart, this is a chart which isn't
- breaking out different opioid drugs. Can
- you tell us what this is showing?
- A. Yeah. So this is -- so in
- the previous slide we've spoken about the
- drugs they would have -- they reported
- taking in the month prior to the
- 24 admission to the methadone treatment

- 1 clinic. Here we're looking at where
- their source of those drugs was, from
- where they received the drugs that they
- 4 were abusing.
- Q. And some of those -- I'm
- 6 pointing right here -- are from
- ⁷ prescriptions that they got, according to
- what they reported, correct?
- ⁹ A. Yes.
- Q. But there are two categories
- that are even higher than that. What are
- those two categories?
- A. From a drug dealer,
- 14 80 percent of the individuals admitted to
- the methadone treatment program; or from
- a friend or relative, more than
- 50 percent of the patients received drug
- 18 from a friend or relative.
- These are -- these don't add
- up to 100, because there may have been
- more than one source for the drug.
- Q. So if you're receiving from
- ²³ a friend or relative, that's not -- that
- would be -- fall into the category of

- potentially both -- well, certainly
- ² misuse and abuse, both, right?
- ³ A. Well, certainly misuse.
- 4 You're not prescribed the product. So
- you're not taking it for the prescribed
- 6 analgesic effect.
- 7 Q. The next slide is just
- 8 showing the poison -- the parts of the
- 9 country that the Poison Control Center
- data is covering, right?
- 11 A. That's correct.
- Q. So let's get to the next
- chart. And we have "Poison Control
- 14 Center data: Intentional exposure rates
- by quarter."
- And, again, this goes
- through -- I quess it starts in '03 and
- goes to the second quarter of '05. Can
- 19 you explain what that is?
- A. So they were monitoring --
- I'd have to go back to what they mean by
- "intentional exposure." I think these
- ²³ are cases where it became known to RADARS
- through their stream where the patient --

- where the individual took a drug of abuse
- over this period of time. And came to
- the -- well, the Poison Control Center
- 4 was the head center for RADARS.
- 5 So I don't know which stream
- 6 they're reporting on for this specific
- ⁷ dataset.
- ⁸ Q. And where is fentanyl on
- ⁹ this chart? Can you see?
- 10 A. Yes. Fentanyl is, across
- this period of time, the third from the
- bottom.
- Q. So it's, again, the green
- line that I am pointing to that's near
- 15 the bottom?
- A. Yes.
- Q. And again, this is
- 18 potentially any form of fentanyl,
- including illegal?
- A. Yes.
- Q. Now, the next chart is some
- zip code-specific data. Did -- do you
- 23 know whether this chart refers to actual
- data from a Duragesic report or whether

- it's simply an example of what this data
- ² collects?
- A. My best recollection,
- ⁴ particularly looking at these data today,
- is that we're talking about rates of
- exposure for hydrocodone, and that's what
- 7 the "HC" is.
- ⁸ Q. And -- but you did have this
- ⁹ information for Duragesic as part of the
- service that the company contracted with
- 11 RADARS to provide?
- A. Yes.
- Q. And when you saw zip
- code-level data, what typically, if you
- 15 remember, what numbers of cases would you
- typically see in those reports?
- A. Very low. You either saw no
- cases in a three-digit zip code or one to
- three cases in a three-digit zip code.
- Q. And if you saw, let's say,
- three cases, what would -- would action
- 22 be taken?
- A. There were boundaries.
- There were certain set points at which

- there would be an intervention to further
- explore what the -- what was going on in
- that three-digit zip code. It would
- 4 depend not just upon the three-digit zip
- 5 code, but whether activity was seen in
- 6 adjacent three-digit ZIP codes or whether
- ⁷ we saw this activity for more than one
- ⁸ quarter.
- 9 So if it met certain
- criteria for -- certain surveillance
- criteria, we would explore further. And
- that might include calls to the area, to
- 13 legal -- to the police in the area or
- 14 representatives who are following up on
- issues, legal issues of policing, or
- actually send somebody down to try to
- understand the environment in that area.
- Q. And who actually would do
- 19 that work?
- A. Someone from RADARS.
- O. Can we take a look at the
- next slide. Does this ring a bell with
- ²³ you?
- A. Yes.

- Q. Can you describe what
- ² happened here?
- A. So this is an example where
- 4 reports of fentanyl increased to the
- ⁵ point where we did further investigation
- of what was going on to understand the
- ⁷ mentions of fentanyl in a three-digit zip
- 8 code.
- And so in 2006, we learned
- of addicts who were dying of heroin
- overdoses, but the heroin was tainted
- with fentanyl. And we were exploring
- whether the fentanyl that was found in
- blood -- in the laboratory testing of the
- blood might have come from pharmaceutical
- grade Duragesic. So we did a deeper
- dive, if you will, to try to understand
- 18 that.
- 19 Ultimately RADARS dispatched
- ²⁰ a -- a Drug Enforcement Agency agent to
- investigate on our behalf, and we learned
- that the fentanyl that was -- that was
- mixed in with the heroin that was leading
- to these deaths, in fact, came from an

- illicit source. It was from a -- a
- 2 laboratory in Mexico and was not --
- ³ Duragesic was not the source of the
- 4 fentanyl.
- ⁵ Q. Let's go back to the slide
- 6 that's entitled Proposed Review For
- ⁷ Interventions.
- A. I have that.
- 9 O. And I take it this is
- discussing how the company would address
- issues that potentially could be picked
- up in the surveillance plan like the one
- that we just saw, correct?
- A. Yes, proposed interventions
- 15 and -- and how we would evaluate the data
- streams that were coming into us from
- these surveillance systems.
- Q. And there is a reference
- here to project RMT, or product RMT. I'm
- sorry. Can you tell us what that is?
- 21 A. Product risk management
- team. So it was representatives of -- I
- think we have -- we may have a slide, but
- it would include representatives from the

- 1 regulatory group, from the safety group
- that -- that made the report, from legal,
- ³ from sales management, from medical
- 4 affairs, a cross-functional team that --
- ⁵ that evaluated these data streams.
- 6 O. And as a result of
- ⁷ evaluation the team might recommend the
- 8 changes that are referenced here. Could
- ⁹ you explain those?
- 10 A. So as a result of the
- 11 findings of these surveillance streams,
- we might recommend that we change
- labeling or that we increase or change
- our educational efforts. Change our
- sales training materials and promotional
- materials, or notify the supply chain
- 17 group about activity that we uncovered.
- Q. All right. And how often
- did these -- this team meet to review the
- ²⁰ surveillance data?
- And let me ask you first,
- were you a part of that team?
- A. I or a member of my team.
- It might have been Gary Vorsanger as my

- ¹ representative to that team.
- O. And how often were these
- 3 meetings held?
- A. I believe these meetings
- ⁵ were on a quarterly basis initially. I
- 6 don't know if that frequency changed.
- ⁷ Q. And if you turn the page to
- 8 the next slide. This identifies the
- 9 areas within the company that had
- 10 representatives who would be reviewing
- this risk management surveillance data;
- is that right?
- ¹³ A. No. So -- so --
- Q. This is a team?
- A. Right. The risk management
- team is separate. The risk management
- team we've spoken about. We made a
- presentation based upon the data, to
- senior management, to the -- the senior
- management of these groups that were
- involved in the day-to-day -- in the
- quarterly review or the assessment of the
- data streams. So this was a senior
- management level that would include the

- 1 chairperson of the risk management team,
- the safety group, benefit/risk
- management, regulatory affairs, medical
- ⁴ affairs, brand, the R&D side,
- ⁵ pharmaceutical group, strategic
- 6 management and legal.
- ⁷ Q. So the -- the results of
- 8 this surveillance were reported up to
- 9 senior management?
- 10 A. To senior management.
- Q. And of course --
- A. With our recommendations.
- Q. And were also reported to
- the FDA as we saw in the progress report?
- A. That's correct.
- Q. You mentioned earlier that
- the Duragesic patch -- that that generic
- versions of patch came into market in
- early 2005; is that right?
- A. Yes.
- 0. And that's because Janssen's
- patent for the product expired, so
- generics were allowed to come in?
- A. Quite simply because the FDA

- ¹ approved a generic version of the
- ² Duragesic patch.
- Q. And did Duragesic become a
- 4 smaller and smaller market share in terms
- of the number of prescriptions written
- 6 compared to the generics after that?
- ⁷ A. From 2005 on, yes.
- ⁸ Q. And did there come a time
- ⁹ when the company, in fact, stopped
- actively promoting it? And I mean in the
- sense of no longer sending sales reps out
- 12 at all to call on physicians.
- A. Yes.
- MS. CONROY: Objection.
- 15 BY MR. LIFLAND:
- Q. Do you know approximately
- when that was?
- A. Approximately 2008.
- Q. All right. Did the company
- continue the risk management plan after
- it was no longer actively promoting the
- 22 product?
- A. Yes.
- Q. And why was that?

- A. Well, for one thing we had
- ² an obligation under our regulatory
- ³ requirements to the FDA, as the NDA
- 4 holder, those were commitments that we --
- 5 that we made to continue surveillance of
- 6 our product.
- ⁷ Q. And I think we saw earlier,
- 8 the last one of the progress reports is
- ⁹ from 2012; is that correct?
- A. Correct.
- Q. And then what happened to
- the surveillance after that?
- A. Well, in a broad sense
- the -- the FDA had already moved to a
- determination that the long-acting
- opioids should have a risk evaluation
- mitigation strategy, REMS program, that
- was standard for all of the long-acting
- opioids. So we were part of a consortium
- that put together the REMS program for
- 21 long-acting opioids.
- 22 And ultimately the -- the
- 23 REMS program and the surveillance program
- that was associated with that REMS

- 1 program was approved by the FDA and that
- became the -- the data stream that was
- fed to the FDA in lieu of the risk
- 4 management plan.
- ⁵ Q. All right. I'd like to
- 6 change subjects here. We've been talking
- ⁷ really about Duragesic so far. But I
- 8 wanted to ask you about the other
- ⁹ Schedule II opioid that we mentioned at
- the beginning, which were the tapentadol
- products.
- So when were those products
- developed?
- 14 A. The tapentadol immediate
- 15 release began development in the early
- ¹⁶ 2000s, eventually leading to approval in
- the United States in 2009. The
- extended-release product was developed
- 19 later on, eventually leading to approval
- in 2011 I believe.
- O. And what are the -- what are
- the brand names of those tapentadol
- ²³ products?
- A. Nucynta and Nucynta ER,

- ¹ extended release.
- Q. And tapentadol, I take it,
- is the chemical name of the molecule
- 4 that -- the pain molecule?
- ⁵ A. That's correct.
- Q. And what is tapentadol?
- ⁷ A. Tapentadol is a innovative
- 8 opioid product that had more than one
- 9 mechanism of action that led to its
- analgesic effect. So on the one hand, it
- was a mu opioid agonist, which is to say
- that it -- it bound to the -- the mu
- opioid receptor and by virtue of that,
- had analgesic properties.
- But there was a second
- mechanism of action which was
- norepinephrine reuptake inhibition which
- was another mechanism of action
- 19 associated with analgesic properties.
- Q. So part of the analgesic
- 21 from the molecule was essentially the
- same -- the same route as your typical
- long -- well, your typical opioid drug,
- the mu agonistic receptor --

- ¹ A. Correct.
- Q. -- so in that respect it was
- 3 an opioid?
- A. In that respect, it was --
- ⁵ it acted as an opioid.
- Q. And what you -- you
- ⁷ described as the other pathway, the
- 8 norepinephrine reuptake inhibitor, are
- ⁹ there other drugs that people know about
- 10 that that would --
- 11 A. Yes. Antidepressants have
- norepinephrine reuptake inhibition.
- 13 There are other drugs that use
- epinephrine or norepinephrine reuptake
- inhibition to -- that can be used for
- ¹⁶ analgesic properties.
- Q. And when you say that, they
- can be used for pain relief?
- A. That's correct.
- Q. And so those -- that was the
- molecule that went into -- was the active
- ingredient of Nucynta and Nucynta ER
- which were the brand names, correct?
- A. That's correct.

```
1 Q. Now, what was the benefit,
```

- 2 maybe it was a hypothetical benefit, but
- what was the benefit, hoped-for benefit
- ⁴ of the dual mechanism of action, what was
- important about that for the company?
- ⁶ A. We learned early on from
- ⁷ animal models and from preclinical models
- 8 that by virtue of having more than one
- 9 mechanism of action, a second mechanism
- of action that was not mediated through
- mu opioid agonism, that there was the
- potential to achieve pain relief,
- ¹³ analgesia effect, without some of the
- 14 associated side effects of a pure mu
- opioid agonist such as Oxycodone or
- hydromorphone -- or hydromorphone.
- Q. And what were the potential
- benefits of that in terms of a pain
- 19 relief product?
- A. If you could achieve similar
- pain relief, the most worrisome side
- effects of treating with a potent opioid,
- the side effects that would lead most
- often to discontinuing an opioid

- medication, would include
- ² gastrointestinal side effects, nausea,
- vomiting, constipation, and some other
- 4 side effects, worrisome side effects such
- 5 as itching, pruritis.
- And so by using a drug with
- ⁷ a dual mechanism of action, we would
- 8 expect to have a better adverse event
- ⁹ profile.
- Other potential benefits
- were to look at pain models where the
- 12 norepinephrine reuptake inhibition was
- understood to play a more prominent role
- in achieving the level of pain relief.
- 15 And that would be in models of
- neuropathic pain, probably the best known
- model would be diabetic neuropathy.
- Q. And did the company study
- the drug to see if it would be effective
- in that specific indication?
- A. Yes, it did.
- Q. And what happened with that?
- A. Ultimately, we had two
- adequate, well-controlled trials in a

- neuropathic pain model, and we -- that
- led to the FDA to give an indication of
- ³ neuropathic pain for Nucynta
- extended-release, Nucynta ER, as well as
- ⁵ the indication of chronic pain. I
- 6 believe it was the first opioid to get
- ⁷ that indication.
- 8 Q. Now, you said that Nucynta
- 9 ER, the one that came in 2011, you said
- as well is an indication for chronic
- pain. So is that the initial indication,
- 12 chronic pain?
- 13 A. The initial indication was
- 14 for moderate to severe chronic pain.
- Q. And was it the same
- indication as Duragesic with the other --
- 17 the other aspects of it that we
- discussed, need around -- you need
- ¹⁹ around-the-clock pain relief and other
- methods of treating it were not
- effective?
- A. Yes. So as a matter of fact
- it was the same indication that I believe
- all of the extended-release opioids had,

- which was for persistent,
- ² around-the-clock, moderate to severe
- 3 chronic pain that could not be managed
- with a short-acting opioid or other
- 5 modalities.
- 6 Q. Okay. So Nucynta
- ⁷ extended-release had that indication, and
- 8 then as an additional indication specific
- ⁹ for diabetic -- pain from diabetic
- peripheral neuropathy, the neuropathic --
- 11 A. Neuropathic pain.
- Q. And what about Nucynta IR?
- Or I guess it was called Nucynta without
- 14 an ER.
- A. That's correct.
- Q. That was the immediate
- 17 release version?
- 18 A. That was the immediate
- 19 release version.
- Q. What was the indication for
- 21 that?
- A. For acute pain that needed
- to be managed with a potent opioid.
- Q. And let me ask you again

- some of the same questions that I asked
- on Duragesic.
- Were there steps the company
- 4 took in terms of the product design to
- 5 try to make it safer to use with regard
- to the risks, the opioid-type risks of
- ⁷ abuse and misuse and diversion?
- 8 A. Yes.
- ⁹ Q. Can you describe that? And
- let's start with the product design.
- A. Well, let me start even
- 12 earlier than product design --
- 0. Okay.
- A. -- with the basic molecule.
- 15 Because it has a dual mechanism of action
- and doesn't rely solely upon mu opioid
- agonism, there was the hypothesis that,
- therefore, it would be less attractive to
- someone who is looking to abuse or misuse
- the drug.
- In terms of the design of
- the formulation, we're talking here with
- the extended-release where higher dose is
- delivered. From the outset, the marketed

- 1 product was developed to be an abuse
- deterrent formulation, a formulation that
- ³ if you tried to defeat the properties
- 4 that led to extended-release, it would be
- ⁵ difficult to defeat those -- those
- ⁶ properties.
- ⁷ Q. Now, did you -- what kind of
- 8 testing did the company do with regard to
- ⁹ the abuse deterrent formulation?
- A. Well, we looked at the
- 11 physical chemical properties of the
- 12 abused deterrent formulation. There were
- a whole variety of tests. We used
- solvents to try to extract it. Chewing.
- We put it in a blender to try to make
- smaller pieces. We tried crushing it.
- Q. What happened in the
- 18 blender?
- A. We broke the blades of the
- blender. I remember distinctly seeing
- the video of that test.
- Q. All right. So you had these
- tests. Was the company able to label the
- product as abuse-deterrent in the way

- that some of the other opioid products
- ² have been labeled in recent years?
- ³ A. No.
- ⁴ Q. And can you explain why not?
- A. At the time the drug was
- approved, there were other opioid
- 7 compounds that were marketed in a
- 8 formulation that we would consider to be
- ⁹ abuse-deterrent. It was more difficult
- to -- in it was more difficult to defeat
- the extended-release properties of the
- compound.
- The FDA made it clear in an
- 14 advisory meeting, I think perhaps more
- than one, that they were not -- they
- would not allow for a labeling of product
- 17 as abuse-deterrent or abuse-resistant
- purely on the basis of the physical
- 19 chemistry of the formulation, but that
- ²⁰ actual data would have to be developed to
- 21 show that the formulation would in fact
- reduce the rates of abuse, misuse,
- diversion because of the abuse-deterrent
- properties of the formulation.

- So we did not have wording
- ² around that when we brought Nucynta ER to
- ³ market.
- Q. And was that data that could
- 5 have been developed in the Nucynta ER
- 6 clinical trials?
- ⁷ A. The pivotal clinical trials,
- 8 no. Those data would have to be
- 9 developed over an extended period of
- time, not over the period of a short
- ¹¹ trial.
- Q. Okay. But when you brought
- the product to market, it still was in
- the abuse-deterrent formulation,
- 15 regardless of whether you were allowed to
- 16 label it as such?
- A. That's correct. In fact,
- the clinical trials that we performed
- with Nucynta were performed with an
- 20 earlier version of the formulation that
- was not in an abuse-deterrent
- formulation. But we made it clear to our
- partner in the development, Grünenthal
- Pharmaceuticals, that we would not bring

- a non-abuse-deterrent formulation to the
- ² U.S. market.
- So we would wait until the
- ⁴ final formulation with the
- 5 abuse-deterrent properties. The
- 6 development on that was finished in that
- ye could do the bioequivalence studies to
- 8 show it was bioequivalent to the
- ⁹ formulation that was used in the pivotal
- ¹⁰ trials.
- 11 Q. Now, were there other steps
- that the company took to assess abuse,
- misuse, deterrence in terms of
- surveillance for the Nucynta product?
- A. Yes. We had a risk
- management plan that we put in place that
- essentially monitored similar data
- streams that were already in place for
- our Duragesic product.
- Q. So those would be the ones
- we just discussed, the SCEPTRE review,
- the FDA AERS review, the various --
- A. The RADARS program.
- Q. The RADARS programs, the

- ¹ DAWN. And all of the things essentially
- that we just talked about that were
- elements of the RADARS risk management
- ⁴ plan were put into the Nucynta risk
- 5 management plans?
- A. That's correct. We -- the
- ⁷ surveillance programs, in a broad sense,
- 8 looked at Schedule II opioids. And
- 9 Nucynta was a Schedule II opioid. So it
- was proven to include it once we began
- marketing in established programs that
- were monitoring for abuse, misuse,
- diversion of these Schedule II products.
- Q. Have you heard of a
- 15 surveillance tool called NAVIPPRO?
- A. Yes.
- 0. What is NAVIPPRO?
- A. NAVIPPRO is a more
- 19 sophisticated tool to monitor internet
- mentions and publications mentions of
- 21 drugs that are abused, misused and
- ²² diverted.
- They -- in addition to the
- internet monitoring, they have

- 1 methodology that can give a more
- qualitative in addition to quantitative
- ³ assessment.
- Q. And we haven't mentioned yet
- 5 the -- the Nucynta package insert. But I
- take it there was a package insert which
- ⁷ gave similar instructions that we talked
- about, from Duragesic, about patient
- 9 selection, dosing, patient monitoring,
- patient counseling, and warnings about
- the risks; is that correct?
- 12 A. That's correct. At this
- time, to the degree possible the FDA had
- moved to have similar indications,
- warnings, instructions to physicians
- across all of the long-acting opioid
- products. And to the degree that they
- could have a similar package insert to
- the other long-acting opioids, that was
- the package insert that was reflected for
- ²¹ Nucynta ER.
- Q. Was there -- well, before we
- go further on the package insert, let's
- just finish up on the surveillance

```
1
    program. And I had asked you about
2
    NAVIPPRO. I want to hand you another
    document which is one of the progress
    reports for -- progress reports for the
5
    Nucynta ER surveillance plan.
6
                  (Document marked for
7
           identification as Exhibit
8
           Janssen-Moskovitz-38.)
9
                 MS. CONROY: What's that
10
           number?
11
                 MR. LIFLAND: I'm sorry,
12
           what's the number?
13
                  THE WITNESS: 38.
14
                 MR. LIFLAND: 38.
15
                 MS. CONROY: Thank you.
16
    BY MR. LIFLAND:
17
                 If you turn to the first
18
    page I think you'll see that the
19
    nomenclature was changed from the
20
    Duragesic plan which was called the risk
21
    management plan. The title of this one
22
    is surveillance plan --
23
                 Safety surveillance plan.
           Α.
24
                 But is it -- it's
           Q.
```

- ¹ functionally the same type of safety
- ² surveillance program as what we looked at
- 3 before?
- A. And this is in -- in
- 5 December of 2013, I had retired at that
- 6 time. But if I look at the table of
- ⁷ contents, the data streams that inform
- 8 this safety surveillance were similar to
- ⁹ what had been reported for Duragesic.
- 10 There were some specific adverse events
- of interest that were specific to Nucynta
- such as the serotonin syndrome. But
- otherwise similar in breadth to what
- we've seen for Duragesic.
- Q. And if you turn to Page 80.
- You can see at the bottom of Page 80 and
- then going onto Page 81, a reference to
- the NAVIPPRO system programs. And that's
- something you were familiar with when you
- were still at the company, correct?
- A. Yes, we began using NAVIPPRO
- ²² for Duragesic.
- Q. And can you -- can you
- describe what the NAVIPPRO program was,

- surveillance program?
- A. Just reading through the
- materials here, surveillance and
- 4 interventional programs that analyze data
- ⁵ from three sources, the addiction survey
- index multi media version, comprehensive
- ⁷ health assessment for teams, and a web
- informed services, internet monitoring,
- ⁹ archive indicators of prescription opioid
- medication abuse.
- Q. And what was the type of
- information you were looking for here in
- ¹³ practical terms?
- A. We wanted early information
- on whether tapentadol, the active
- ingredient in Nucynta, was going to be
- found attractive by drug abusers,
- attractive for abuse, misuse and
- diversion. This was an opportunity to
- 20 explore these issues with a brand-new
- opioid product brought to market and to
- understand that at a very early stage
- through these mechanisms of -- of
- internet monitoring and use among

- teenagers, whether there were concerns
- about Nucynta that it might be different
- 3 from other opioids.
- 4 Q. And do you remember what
- ⁵ kinds of data the company received from
- the surveillance plans that were put in
- 7 place for the Nucynta product?
- 8 A. That in general, Nucynta was
- 9 not a product that was sought by
- individuals who would abuse, misuse and
- divert -- and divert opioid products.
- Q. And where did it rank in
- 13 terms of the various RADARS indexes that
- we looked at on the slide?
- A. Consistently at the bottom,
- or very near the bottom of measures of
- abuse, misuse and diversion.
- Q. Now, when Nucynta, the
- extended release was brought out, was
- there -- was the extended release, the
- 21 class REMS in place yet?
- A. No. It was still -- it
- still hadn't been finalized between the
- consortium of companies marketing

- ¹ extended-release products and the FDA.
- O. And so did the -- what did
- 3 the company do about that?
- ⁴ A. We developed a REMS program
- similar to the Duragesic REMS program
- 6 that we could institute before there was
- ⁷ a final long-acting opioid REMS program
- 8 approved for all of the long-acting
- ⁹ opioids.
- Q. So you put up, when you
- introduced the extended-release version,
- you had its own REMS to go along with the
- launch of the product?
- A. That's correct. With the
- understanding that when there was a REMS
- that was approved for all of the
- 17 long-acting opioids, Nucynta would be
- included as part of that REMS. But we
- 19 didn't wait for that. We -- we had a
- 20 REMS program earlier.
- Q. And let me mark the next in
- order as Exhibit 39.
- 23 (Document marked for
- identification as Exhibit

- Janssen-Moskovitz-39.)
- MS. CONROY: Thank you.
- 3 BY MR. LIFLAND:
- ⁴ Q. Take a moment to flip
- 5 through that. Can you tell me what this
- 6 document is?
- ⁷ A. This is the REMS program,
- 8 the risk evaluation mitigation strategy
- ⁹ program per FDA guidelines around the
- 10 REMS program that was instituted for
- Nucynta ER at the time of launch.
- Q. And this was in addition to
- the safety surveillance plan that we just
- 14 looked at?
- A. That's correct.
- Q. And what were the elements
- of this?
- A. The elements would include a
- medication guide that went to the patient
- each and every time he or she picked up
- their prescription from the pharmacy.
- Education of healthcare providers on all
- of the elements that we've previously
- spoken about. And a educational program

- with an attempt to enroll as many
- ² physicians as possible to take the
- ³ educational program.
- Q. And if you turn to Page 24.
- ⁵ This is a set of educational materials
- that were prepared as part of the REMS?
- A. Yes. Yes.
- Q. And if you go back to, two
- ⁹ pages, you see a letter there. Well, let
- me -- I'm sorry, not two pages.
- 11 A. I believe you're looking at
- ¹² Page 16.
- Q. Yeah, 16. What's Page 16?
- A. This is the letter to
- healthcare providers that would have been
- sent out as part of the REMS program.
- Q. So they would have been sent
- out, at product launch, this entire
- package of educational materials?
- A. Yes.
- Q. Was Nucynta a successful
- 22 product?
- A. Success is relative. It was
- not as successful as we had hoped it

- ¹ would be.
- Q. And did you have a view on
- why that was?
- A. We knew that we were
- ⁵ introducing a new opioid into a
- 6 marketplace with a lot of other options,
- ⁷ including options that were available
- ⁸ generically.
- 9 Q. And ultimately what happened
- to the Nucynta products at Janssen?
- A. We divested the product and
- sold it to another company.
- 0. And that occurred when?
- ¹⁴ A. In 2015.
- Q. Just one last -- one last
- question.
- In your testimony earlier,
- you were asked questions about the
- difficulty of doing a clinical trial with
- 20 -- prospective clinical trial with an
- 21 endpoint of addiction.
- 22 Can you elaborate on the
- reasons why such a trial would be so
- ²⁴ difficult to do?

- ¹ A. There are a variety of
- reasons why that would be the case, if
- you're talking about a controlled
- 4 clinical trial where the endpoint was
- ⁵ addiction.
- To begin with, as the -- you
- yould have to define addiction such that
- 8 it could be assessed in a proper clinical
- ⁹ trial. You would estimate the point of
- addiction such that you would get a
- sample size. Because the adverse event
- of addiction is considered to be rare in
- properly monitored patients, a
- statistical assessment of the number of
- patients that you would need to do such a
- clinical trial would be rather large,
- perhaps in the range of 100,000 patients
- or more.
- Moreover from an ethical
- standpoint, you would be enrolling these
- patients with instructions to the
- treating physician to see these patients
- on a regular basis so that he or she
- would be properly monitoring the patient.

- ¹ In all of the clinical trials, you would
- ² have regular assessments, and the regular
- 3 assessments would include elements that
- we've spoken of earlier as indicators of
- ⁵ behaviors that would indicate abuse,
- 6 misuse and diversion.
- And there, from an ethical
- 8 standpoint would need to be an
- ⁹ intervention at that time. And that
- intervention may even include
- discontinuing the drug.
- So the likelihood that you
- would reach the endpoint of interest with
- 14 a reasonable number of patients in a
- 15 reasonable period of time would be
- exceedingly small.
- MR. LIFLAND: No further
- questions.
- We'll take a five-minute
- break.
- THE VIDEOGRAPHER: Okay.
- The time is 6:35 p.m. Going off
- the record.
- (Short break.)

```
1
                  THE VIDEOGRAPHER:
                                      We are
2
           back on the record. The time is
3
           6:45 p.m.
5
                    EXAMINATION
6
7
    BY MS. CONROY:
8
                  Dr. Moskovitz, for probably
9
    about the last two hours or so you've
10
    testified about the Duragesic and the
11
    Nucynta label, the treatment of chronic
12
    pain with opioids, different
13
    formulations, the reservoir, the matrix,
14
    abuse, diversion, misuse, addiction,
15
    iatrogenic addiction, monitoring --
16
    monitoring programs, all of those things,
17
    right?
18
           Α.
                 Yes.
19
                 And you've been designated
20
    by Janssen as the person most
21
    knowledgeable about studies, trials,
22
    reports about opioids, including
23
    Duragesic, as well as the label and
24
    warnings and adverse events and the
```

```
    benefits and the risks of Duragesic,
    Nucynta, and -- and opioids generally,
```

⁴ A. Yes.

would you agree?

- MR. LIFLAND: I object to
- the form of the question. He's
- not designated as the person most
- knowledgeable. It's a 30(b)(6)
- ⁹ corporate rep deposition.
- 10 BY MS. CONROY:
- Q. You can answer.
- A. That's my understanding.
- Q. And you were appointed the
- head of the pain division in medical
- affairs and you held that position -- and
- 16 I know it had some name changes -- for
- ¹⁷ approximately 11 years, correct?
- A. Yes.
- 19 Q. You are a medical doctor?
- A. Yes.
- Q. You have prescribed opioids?
- A. I have.
- Q. Janssen believed you were
- qualified to head the division, correct?

1 Α. Yes. 2 Would you say that you are Ο. an expert with respect to pain, addiction, abuse, diversion, the label, 5 Duragesic, all of those items? 6 MR. LIFLAND: Object to the 7 form of the question. 8 THE WITNESS: That's a broad 9 I would say I have expertise 10 in clinical trial methodology. 11 I'm well versed in the label of 12 our products. 13 I certainly gained extensive 14 amount of knowledge over general 15 principles of pain management. I have an extensive information 16 17 about the benefits and risks of 18 our products, the 19 pharmacokinetics, the -- the 20 formulations. 21 But in -- in terms of the 22 level of expertise, I mean clearly 23 there are other experts in pain management, but overall I'm well 24

- versed in our products.
- ² BY MS. CONROY:
- Q. And that would include pain
- ⁴ and addiction?
- ⁵ A. That would include pain and,
- 6 with -- with respect to our compounds,
- ⁷ the concerns of adverse events that --
- 8 that include the potential for abuse,
- ⁹ misuse, diversion.
- I'm not an expert on
- treating addiction, but in the sense
- of -- of the potential for our drugs to
- have as adverse events abuse, misuse and
- diversion, yes.
- Q. What about the adverse event
- of addiction?
- 17 A. The -- the knowledge that a
- potent opioid such as our compounds,
- Duragesic and Nucynta, have the capacity
- for addiction, abuse, misuse and
- ²¹ diversion, yes.
- 22 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-40.)

- ¹ BY MS. CONROY:
- Q. I'll show you Exhibit 40.
- Exhibit 40 is a -- an e-mail
- 4 thread in June of 2006. It is
- ⁵ JAN-MS-00957863 through 864. And if you
- 6 would turn the page to the second page
- ⁷ which is the first e-mail. And it is an
- 8 e-mail to you from Dawn
- ⁹ Sanderson-Bongiovanni, do you see that?
- ¹⁰ A. Yes.
- 0. On June 19, 2006. And
- she -- I -- I saw her name. She was one
- of the individuals that's in the
- benefit/risk management group and she
- signs or she is one of the signators to
- the progress report that's filed with the
- ¹⁷ FDA, the risk management progress report?
- 18 A. I'd have to go back to the
- document but I'll certainly take your --
- your word for that.
- Q. I won't make you take -- I
- can show it to you, but --
- A. That's fine.
- ²⁴ Q. Okay.

- Dear Bruce, it was so nice
- to meet you at the data flow meeting last
- week" -- "last Monday. Thank you for
- 4 hosting a lovely dinner. I'm writing in
- ⁵ regard to the comments received from the
- ⁶ FDA in response to the Duragesic risk map
- ⁷ proposal. The agency expressed concern
- 8 about the risk of iatrogenic addiction
- ⁹ with chronic use of Duragesic.
- 10 Therefore, I'm in the process of
- 11 reviewing potential cases of iatrogenic
- 12 addiction that have been reported to the
- company."
- Those would be cases
- 15 reported through the adverse event
- reporting mechanism, correct?
- A. Yes.
- Q. "As part of my background
- 19 research I've read multiple articles in
- the past week with conflicting estimates
- for the incidence of addiction in
- 22 patients with chronic pain. The
- variation is probably due to inherent
- differences between the study

- populations, in parentheses, (AIDS)
- ² patients versus burn patients) and
- differences in monitoring parameters. I
- 4 was wondering if you could possibly cite
- ⁵ a 'landmark' article that reflects
- 6 current medical thinking about the
- occurrence and etiology of addiction
- 8 (induced by opioid therapy). Thank you
- ⁹ for sharing your expertise on this
- 10 subject."
- Do you know Dawn
- 12 Sanderson-Bongiovanni, do you know her
- 13 face-to-face?
- A. No, I don't.
- Okay. Do you know where she
- works? I mean do you know what office
- 17 location she works in?
- A. It -- it would have been in
- the Titusville office. That's how she
- signs her name.
- Q. And that's not where you
- were located?
- A. No, I was up in the --
- Q. And then you respond to her

- that same day, actually five minutes
- later, and you say, "Dawn, I cannot.
- Pain and addiction are not my specialty.
- 4 However, I'm copying your request to Gary
- ⁵ Vorsanger and David Hewitt in my group.
- ⁶ Gary is an anesthesiologist by training.
- ⁷ David is a neurologist specializing in
- 8 pain medicine. Gary, David, kindly
- 9 address Dawn's questions. Thanks."
- Do you see that?
- ¹¹ A. Yes.
- Q. And then both men do respond
- that same day. And you can -- and you
- can read it, but Dr. Hewitt says,
- "Unfortunately the evidence supporting
- the low abuse potential among patients
- 17 receiving opioids for chronic pain is not
- based upon strong data. I've seen
- 19 numbers that suggest the rate of
- ²⁰ addiction is similar to the population at
- large and no higher."
- And Dr. Vorsanger says,
- among other things, that he's skeptical
- of the low rates, that Margo, Margo

- 1 McCaffery who is referenced in an e-mail,
- ² cite, and others cite.
- Had you had -- you had
- 4 conversations, do you know, with
- ⁵ Dr. Vorsanger or Dr. Hewitt about their
- 6 belief about the incidence of iatrogenic
- ⁷ addiction with chronic pain patients
- 8 taking opioids for chronic pain?
- ⁹ A. In a general sense we were
- aware that the data would not be
- 11 considered high quality data when there
- is a methodology that -- that reports on
- what would be considered high quality
- data, which would be a controlled
- 15 clinical trial. So the -- the reports
- oftentimes didn't cite the criteria by
- which they would make that diagnosis, the
- patient population that they explored,
- whether this was prospective or
- retrospective. So there was
- the understanding that there are data out
- there, and those are the best data
- 23 available to us, but it doesn't
- necessarily reflect a true incidence of

```
1
    abuse, misuse and diversion with opioids.
2
                 Do you believe it doesn't
    represent the true incidence because the
    true incidence is higher?
5
                 Because the true incidence
           Α.
6
    can't be arrived at with the methodology
7
    used in the papers that explored that.
8
                 But it appears to me, and
9
    we'll ask Dr. Vorsanger about this,
10
    and -- and potentially Dr. Hewitt, but it
11
    seems to me that they believed that those
12
    studies also under -- under represent?
13
                 MR. LIFLAND: Object to the
14
           form of the question.
15
                 THE WITNESS: That may be
16
           the case. That that -- being a
17
           potentially inaccurate estimate,
18
           it may underestimate the rate of
19
           abuse, misuse, and diversion. And
20
           particularly addiction and those
21
           reports of addiction.
22
    BY MS. CONROY:
23
                 Is there a reason why you
    cited -- well, let me ask you this.
24
```

- you familiar with the Porter & Jick
- ² study?
- ³ A. Yes.
- ⁴ Q. And you've cited that in the
- 5 past?
- A. As part of what was
- ⁷ available at the time that -- some --
- 8 some of the earlier reports around
- ⁹ incidence of abuse, misuse and diversion.
- ¹⁰ Abuse.
- Q. When you cited that --
- 12 actually a letter to the editor, when you
- 13 cited that --
- A. Right.
- Q. -- it was -- you cited it a
- 16 few times that I saw the most, the latest
- cite was in 2007 in the risk management
- plan, you didn't qualify that study or --
- 19 I guess it's not a study -- letter to the
- editor.
- You didn't qualify it in any
- way and say I'm not sure that this study
- was done correctly or that it accurately
- reflects the -- the situation today.

```
1
    Isn't that true?
2
                  T didn't. --
           Α.
3
                  MR. LIFLAND: Object to the
           form of the question.
5
                  THE WITNESS: I didn't
6
           qualify it in that respect.
7
    BY MS. CONROY:
8
                 Why did you cite it?
9
                  Because it was part of the
10
    body of information. There were
11
    relatively few reports of rates of abuse
12
    with the use of opioids. And this was
13
    certainly one of the earliest, one of the
14
    largest, went through a large number of
15
    patients, and it was recognized in the
16
    pain literature as one point of
17
    reference.
18
                 But you understand that was
19
    not about abuse, that was about addiction
20
    that letter?
21
           Α.
                 Yes.
22
                 And are you familiar with
    the details of that letter?
23
24
           Α.
                  I'd have to go back to the
```

- ¹ letter.
- Q. Do you understand that it
- was with -- only concerning patients in a
- 4 hospital?
- A. Yes, that's my -- yes,
- that's my understanding.
- ⁷ Q. And for a very short period
- 8 of time?
- ⁹ A. Yes.
- Q. And a very short follow-up
- 11 as well?
- 12 A. I'd have to go back to the
- letter to see what the follow-up period
- 14 was.
- Q. Is there a reason why you
- didn't tell Ms. Sanderson-Bongiovanni
- about the Porter and Jick?
- A. I -- I referred it to the
- two individuals in my group, the two
- 20 physicians who reported to me who may
- have been able to provide better data
- sources to her.
- Q. But you knew there weren't
- ²⁴ any other data sources.

- A. I knew what I knew, and they
- 2 may have -- and they may have had a
- ³ broader knowledge base than I did.
- Q. You just told me there were
- ⁵ very few large scale studies. Did you
- 6 think that one got by you?
- 7 MR. LIFLAND: Object to the
- 8 form of the question.
- 9 THE WITNESS: I don't know.
- I don't recall all of the sources
- of information around addiction.
- 12 BY MS. CONROY:
- Q. But you do recall that there
- 14 aren't many?
- A. I recall that there weren't
- many. And I recall that in instances
- where they were reported, they may not
- have reported what criteria they used to
- make the diagnosis of addiction or the
- patient population or the duration of
- therapy. So there were limitations in
- the reports.
- Q. The only one that you cited,
- however, in the risk management plan was

- ¹ Porter and Jick, correct?
- A. I'd have to go back to the
- ³ risk management plan. But I'll --
- MR. LIFLAND: Object to the
- form of the question.
- 6 BY MS. CONROY:
- ⁷ Q. Let me ask it this way. You
- 8 can't recall any other study concerning
- ⁹ addiction to chronic pain medication
- other than Porter and Jick as you sit
- 11 here today?
- 12 A. There were other studies
- that looked at issues -- at addiction in
- ¹⁴ a population that received opioids.
- Q. Do you recall what the
- results were?
- 17 A. That the overall incidence
- of addiction was relatively low.
- 19 Q. If you take a look at
- Ms. Sanderson-Bongiovanni response. She
- says, "Well, one thing is obvious from
- these responses. Medical affairs is not
- in the process of addressing the FDA
- comments on the issues of iatrogenic

- addiction, so we're not duplicating
- ² efforts and resources."
- Did you have any
- 4 conversation with her about whether or
- 5 not you were in fact going to assist in
- 6 addressing the FDA's comments on the
- ⁷ issues of iatrogenic addiction?
- 8 A. Well, we looked at our
- 9 database of adverse event reports and did
- an analysis of our database relative to
- iatrogenic addiction. But I was not on
- that final -- no, I don't know.
- Q. Were you -- were you
- involved in her progress report to the
- 15 FDA with respect to the issue of
- iatrogenic addiction?
- A. I would have reviewed that.
- Q. You provided the database
- 19 results for that progress report,
- correct, the issue with the 103 patients
- believed to be addicted, an adverse event
- of addiction?
- A. That would have come from
- the benefit-risk management group, from

- the group that received the adverse
- events, not from medical affairs.
- Q. Okay. So the -- so what if
- ⁴ anything would you have been providing to
- ⁵ Sanderson-Bongiovanni to assist in the
- ⁶ process of addressing the FDA comments?
- A. The report on iatrogenic
- 8 addiction was relative to Duragesic. If
- ⁹ I go back to her original question, it
- appears that she's asking a broader
- question about iatrogenic addiction, not
- specific to Duragesic.
- Q. Well, she says, "I'm writing
- in regard to the comments received from
- 15 FDA in response to the Duragesic risk map
- proposal. The agency expressed concern
- about the risk of iatrogenic addiction
- with chronic use of Duragesic."
- That sounds pretty specific
- 20 to me.
- A. Right, but she continues,
- "As part of my background and research,
- ²³ I've read multiple articles with
- conflicting estimates for the incidence

- of addiction in patients with chronic
- pain, and she cites specific groups.
- So she's asking for a
- 4 landmark article about the occurrence and
- ⁵ etiology of addiction, not -- I read that
- 6 as not specific to Duragesic. She wants
- ⁷ a backgrounder on addiction.
- 8 Q. Right. And instead of
- ⁹ telling her anything, you respond that
- pain and addiction aren't your specialty.
- 11 A. I respond that there are
- better sources for the articles that she
- was looking for.
- Q. And the two individuals who
- provided that source tell her that
- they're skeptical about the low rates of
- iatrogenic addiction, correct?
- A. Correct.
- Q. And yet she continues in
- that progress report that was marked as
- 21 an exhibit at this deposition in --
- continuing to imply that the rates of
- iatrogenic addiction are low.
- A. Because the available data

- which could be questioned as to the
- ² patient population that they looked at,
- 3 the criteria that they use to make that
- 4 diagnosis, could be questioned. It was
- ⁵ clear that the available data did not
- 6 come from a controlled clinical trial.
- ⁷ And so it had the limitations that we
- understood for retrospective databases or
- 9 anything other than a controlled clinical
- ¹⁰ trial.
- But it was -- we were trying
- to find the best available data at the
- 13 time.
- Q. But you understand -- and
- 15 I'm sure you have seen studies, that
- adverse event reporting picks up about 10
- percent, it's believed, of adverse events
- that are experienced by patients, because
- it's dependent upon doctors, and
- 20 potentially others, reporting those
- 21 adverse events, correct?
- A. I won't cite a rate. But
- yes, it's generally understood that the
- rate of reporting of adverse event is far

- less than the actual incidence of adverse
- events. Yes, that was -- that was widely
- ³ understood for almost all adverse events.
- 4 Q. However, that's not cited in
- the report to the FDA, correct?
- A. No. But in the report to
- ⁷ the FDA about iatrogenic addiction, we
- 8 specifically state these are the cases we
- ⁹ received.
- Q. But you don't state that
- it's well known that adverse event
- 12 reporting is a very inaccurate way of
- determining the true extent of adverse
- 14 events?
- A. We are reporting this to the
- 16 Food and Drug Administration. And I
- think they, above all, would understand
- that there are limitations, significant
- 19 limitations in rates of adverse event
- reporting that come into the company or
- 21 to the FDA.
- Q. Do you think when you cite
- Porter and Jick to them, they likewise
- understand the limitations of that letter

- ¹ to the editor?
- A. I do think that the FDA
- ³ understands the limitations of any source
- ⁴ of data, and they can compare those
- 5 sources of data with respect to the
- 6 accuracy. So clearly a randomized
- ⁷ controlled clinical trial is going to
- give you more accurate data than an
- 9 observational study or than a study in
- which there were reports of that come
- into a company. I'm clear that the FDA
- understands the limitations of those
- 13 data.
- Q. You also spoke during your
- direct examination about animal models
- and that there were some -- you talked
- about some dual mechanisms of action with
- the mu receptors in animal models and
- ¹⁹ animal trials. Do you recall that
- testimony?
- A. Yes.
- Q. Are you familiar with the
- reference in your risk management plan to
- 24 an animal study that talked about low

```
1
    doses after one or more months of
2
    treatment that animals can develop opioid
    addiction?
                 I'd have to look at the
    document. I don't recall it offhand.
5
6
                 Let's take a look at it. I
           0.
7
    don't --
8
                 MS. CONROY: Mr. Lifland,
9
           maybe you can help him find the --
10
           I don't have the exhibit number.
11
           It's about that thick. It's an
12
           exhibit right there. And it is
13
           the risk management plan from
14
           June 14, 2007. I have a -- I can
15
           pass you a copy if you want to see
16
           it.
17
                 MR. LIFLAND: This?
18
                 MS. CONROY: Except -- I
19
           can't see it.
20
                 MR. LIFLAND: The plan or
21
           the report?
22
                 MS. CONROY: The plan.
23
           That's it right there. Do you
24
           have the exhibit number?
```

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MR. LIFLAND: 29.

MS. CONROY: 29. Great.

Thank you.
```

- 4 BY MS. CONROY:
- ⁵ Q. If you go to Page 29.
- A. I'm not there yet.
- Q. Oh, here. Let me give you
- 8 this one. It will be faster. If you go
- ⁹ to Page 29. I gave my clean copy away,
- but I'll put it on the screen. Hide my
- ¹¹ notes.
- "At low doses after one or
- more months of treatment, animals can
- develop opioid addiction."
- Do you see that?
- ¹⁶ A. I do.
- Q. Do you know what -- that
- 18 study is not cited here. Do you know
- 19 what it is?
- A. My assumption is that, as
- 21 part of development of any program, we
- would be looking at preclinical data and
- ²³ animal data, and that this was one of the
- studies that helped to assess the

- potential for addiction in -- it was a
- study that was done in an animal model.
- But we knew that fentanyl, by virtue of
- being a Schedule II compound, had a high
- ⁵ potential for abuse, misuse and
- ⁶ addiction.
- Q. Well, animals aren't
- 8 misusing or abusing it, correct?
- ⁹ A. No. Correct.
- Q. So this would be a study
- 11 about addiction?
- 12 A. In -- yes.
- Q. Will I find this study in
- the -- I have lots of references that I
- got at your 30(b)(6) deposition. Will
- this study be part of the NDA, do you
- think, or?
- A. I would imagine it would be
- ¹⁹ part of the NDA.
- Q. Okay. You don't have any
- specific memory of what this is?
- A. I don't. But again we
- understood all potent opioids have
- addictive properties and, if administered

- ¹ to laboratory animals, you can --
- ² chronically administering it can lead to
- 3 addiction.
- 4 O. And oftentimes animal --
- 5 animal models are used to give some
- insight into what might happen with
- humans, correct? That's the reason that
- you do animal model studies, right?
- 9 A. Certainly insight into
- scheduling a product, and insight into
- potential risks for the product.
- One month of treatment with
- ¹³ a controlled substance, an opioid or
- something like a fentanyl patch, that
- would be fairly typical for chronic pain
- patients, correct?
- A. One month would be typical
- 18 for chronic -- for treating chronic pain
- moderate -- severe enough, if they met
- the criteria with a Duragesic -- with a
- Duragesic patch, yes.
- But I don't want to indicate
- that you can directly translate animal
- models into a human model. We know that

- opioids are addictive, therefore, they
- need to be properly prescribed with the
- ³ appropriate monitoring around them and
- 4 the appropriate instruction to patients
- ⁵ and assessing patients.
- Q. Correct.
- ⁷ I know you testified earlier
- 8 that RADARS is independent of Janssen,
- ⁹ correct?
- A. Yes.
- Q. Do you know if RADARS is
- independent of any other pharmaceutical
- company?
- A. It is.
- 0. It's a standalone?
- A. It's a standalone.
- Q. Do you know if Janssen has
- or had a licensing agreement with Sandoz
- to either manufacture or market generic
- ²⁰ Duragesic?
- A. It's my understanding that
- we had an agreement with Sandoz to market
- ²³ an authorized generic of Duragesic.
- Q. And was it -- that was in

```
writing, I assume?
```

- A. I'm sure it was. I never
- 3 saw the contract.
- Q. Okay. And while you were
- ⁵ employed at Janssen, do you know if
- Janssen or Johnson & Johnson, or Janssen
- ⁷ Ortho-McNeil ever owned a company called
- 8 Noramco that -- that manufactured opiates
- ⁹ or the raw material that potentially was
- used for any Janssen opioid products?
- 11 A. I was aware of a company
- Noramco. I don't recall the exact
- 13 relationship, whether it was part of the
- ¹⁴ Johnson & Johnson organization, but I
- knew that, that they manufactured raw
- ¹⁶ materials.
- Q. Do you know if they
- 18 manufactured raw materials for other
- pharmaceutical companies' products?
- A. I don't know.
- O. Who would know that?
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: Probably

- somebody in the supply chain.
- ² BY MS. CONROY:
- Q. Do you know if -- or had you
- ⁴ ever heard that they manufactured the
- ⁵ opiate for OxyContin?
- A. I don't know.
- ⁷ Q. You were -- Exhibit 33 was
- 8 marked during your direct testimony.
- 9 What I'm going to mark is a
- cover letter for that paper, I mean
- 11 for -- for your report.
- A. So I don't need to find
- ¹³ it --
- Q. No, I'm going to give you
- the whole thing even though it will kind
- of be an extra.
- The -- I will tell you that
- the attached is already marked as
- 19 Exhibit 33.
- 20 (Document marked for
- identification as Exhibit
- Janssen-Moskovitz-41.)
- BY MS. CONROY:
- Q. So this is 41, and this is

- ¹ 33.
- Exhibit 41 is an e-mail from
- you to Ravi Desiraju and Michael Kaufman
- with cc's to Lisbeth Warren, Gary
- ⁵ Vorsanger and Jean Farrell. And it's
- 6 dated April 28 of 2008.
- And in this e-mail you
- 8 attach your summary of the RADARS report
- 9 on rates of abuse and diversion for
- transdermal fentanyl products. And you
- say, "I understand. We will not provide
- this assessment with the RADARS report we
- submit to the FDA."
- Do you see that?
- A. Yes.
- Q. So Exhibit 33, which we've
- 17 already looked at, would not be submitted
- to the FDA, correct?
- A. Correct.
- Q. "In that case, it becomes an
- internal document justifying our move to
- ²² a clinical development plan for a switch
- from the reservoir to the matrix
- transdermal patch, would anyone need to

```
1
    review it."
2
                  Do you see that?
3
           Α.
                 Yes.
                 And is it still your
5
    understanding that this remained an
6
    internal Janssen document to justify the
7
    clinical development plan to move from
8
    reservoir to matrix?
9
                  I believe so. I mean, our
10
    commitment to the FDA was that before any
11
    decision to move from a reservoir patch
12
    to the matrix patch, we would want to
13
    review the available RADARS data to
14
    satisfy ourselves that the concerns we
15
    expressed in 2001 and 2004 over potential
16
    differences between the two formulations
17
    were not coming to fruition and that once
18
    we had the data for our own use, we were
19
    comfortable that it, in fact, did not
20
    show an increased rate of abuse, misuse
21
    and diversion. And so we felt
22
    comfortable with the decision to move to
23
    the matrix patch which was what the FDA
24
    had preferred we do.
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```
I don't know whether the
```

- ² final decision was to submit those data
- or simply acknowledge to the FDA that
- 4 yes, we've had an opportunity to review
- 5 the data, we're comfortable that the
- 6 concerns we expressed in 2001 and 2004
- were allayed and that we will move
- 8 towards the development of a matrix.
- 9 Q. And -- and you wrote that
- out in Exhibit 33. But if you take a
- 11 look at the second page of Exhibit 33,
- you go -- you continue to say, "While
- concerns remain that in the future rates
- of abuse and diversion may increase,
- because the matrix formulation can be cut
- and diverted in ways the reservoir
- 17 cannot. A matrix formulation has
- advantages over a reservoir formulation
- in that it cannot 'leak' if a
- manufacturing defect leads to an unsealed
- ²¹ reservoir."
- Do you see that?
- ²³ A. Yes.
- Q. So you still had concerns

- about the abuse and diversion of the
- ² matrix patch or the matrix technology?
- A. We're always concerned about
- ways in which any of our products might
- ⁵ be abused, misused and diverted. At this
- 6 point in time we had -- we had no
- ovidence that over the previous few
- years, that the rates differed between
- ⁹ the two formulations.
- We were certainly going to
- 11 continue our surveillance program so if
- we started to see increases in rates
- of -- of cutting the patch and diversion
- of the patch, based upon what we've
- 15 already discussed as outcomes of our
- surveillance program, we might have taken
- additional steps to minimize those risks.
- Q. But as of -- as of the date
- that you were internally justifying this
- switch, and the date on this is April
- of -- end of April of 2008, you -- you
- still had concerns that there would be an
- increase in abuse and diversion with the
- 24 matrix?

- A. We knew that there were ways
- in which the matrix patch could be
- abused, misused and diverted that
- 4 differed from the Duragesic reservoir
- 5 patch. I don't think those concerns
- 6 would ever completely dissipate. But
- ⁷ that's why we monitor.
- Q. Okay. And so if we go back
- ⁹ to what was said in the Mudskipper report
- from 2004, which was Exhibit 25, that
- "the availability of a fentanyl matrix
- patch is likely to increase the diversion
- of patches with major public health
- consequences," and then it goes onto the
- two bullet points of -- of further
- explaining that, that's really the same
- thing that you're saying in the internal
- justification memo, correct?
- MR. LIFLAND: Object to the
- form of the question.
- 21 BY MS. CONROY:
- Q. -- that you were
- 23 concerned that -- you were concerned that
- diversion and abuse might increase with

the matrix patch? 1 2 MR. LIFLAND: Object to the 3 form of the question. THE WITNESS: At the time of 5 the 2004 report, this was a 6 hypothetical, because there was no 7 matrix patch on the market in the 8 U.S. 9 And so we did the studies 10 that informed our concerns about 11 risks of -- differential risks of 12 abuse, misuse and diversion. 13 In 2007, 2008 we had 14 available data from the RADARS 15 reports that informed us that the 16 differences were not the degree 17 that we had perhaps anticipated in 2004, and so we felt comfortable 18 19 with the decision to switch from a 20 reservoir to a matrix. 21 The concerns about the ways 22 in which a drug might be abused, 23 misused and diverted would remain. 24 And that's why we continue our

1 surveillance programs. 2 BY MS. CONROY: 3 Right. Because the availability of a fentanyl matrix patch 5 is likely to increase the diversion of 6 patches with major public health 7 consequences, has never changed, correct? 8 MR. LIFLAND: Object to the 9 form of the question. 10 THE WITNESS: That -- that 11 was our -- lacking any actual use 12 data, this was our assessment in 13 2004 based upon the data that we 14 generated in the course of 2003, 15 2004. 16 By 2007, 2008, we had actual 17 use data. That allayed the 18 concern at the time and helped us 19 make the decision that we would 20 follow the FDA's preference for 21 moving from a Duragesic reservoir 22 patch to a matrix patch, which we 23 identified as having certain 24 advantages over a reservoir patch.

```
1
    BY MS. CONROY:
2
                 I accept all of that.
    you still remained concerned about an
    increase in diversion with a matrix
    patch. You had that concern in 2004.
5
6
    You had that concern in 2008. And it
7
    sounds like you have that concern today.
8
                 MR. LIFLAND: Object to the
9
           form of the question.
10
                 THE WITNESS: We're always
11
           aware of ways in which our drugs
12
           might be abused, misused and
13
           diverted. We're always -- we're
14
           always aware that there are
15
           differences in the ways a
16
           reservoir patch and a matrix patch
17
           might be abused, misused, and
18
           diverted. We had greater concerns
19
           before we had real world data.
20
                 By 2007, 2008, there were
21
           enough data that allayed those
22
           concerns.
23
                 Why that was the case,
24
           that's hypothetical. It may be
```

1 because there is more attraction 2 to other compounds that are on the 3 market. It doesn't change the fact 5 that there are ways in which a 6 matrix Duragesic patch can be 7 abused that differ from the 8 reservoir patch. We continued our 9 surveillance programs to see if at 10 any point that would be the case. 11 In theory, if you took all 12 other Schedule II products off the 13 market and the only drugs that 14 were available were a reservoir 15 patch and a matrix patch, there would be more abuse, misuse and 16 17 diversion of a matrix patch 18 because, in some ways, it was 19 easier. 20 BY MS. CONROY: 21 I understand what you're 22 saying. My question is not about the 23 relationship between a reservoir patch 24 and matrix patch. It's strictly that

1 once you made the decision with respect 2 to the matrix patch to go with the matrix patch, you still had concerns about abuse and diversion? 5 MR. LIFLAND: Object to the 6 form of the question. 7 THE WITNESS: We always had concerns about abuse, misuse and 8 9 diversion of our Duragesic product, whether it was reservoir 10 11 or matrix. That's why we 12 monitored for signals of abuse, 13 misuse, and diversion. We're 14 simply aware that there were 15 different ways that you could 16 abuse, misuse and divert a matrix 17 patch. We always had concerns for 18 both of the formulations that they could be abused, misused and 19 20 diverted. 21 BY MS. CONROY: 22 And those concerns existed Ο. 23 in 2004 and they remained a concern for 24 the matrix patch in 2008.

```
1
                 And that's why --
           Α.
2
                  MR. LIFLAND: Object to the
3
           form of the question.
4
                  THE WITNESS: And that's why
5
           we continued our surveillance
6
           programs. Yes, we continued to
7
           have concerns about ways in which
8
           our products could be abused,
9
           misused and diverted.
10
    BY MS. CONROY:
11
                 You testified right at the
12
    beginning of your direct testimony about
13
    addiction -- definitions of addiction and
14
    dependence. Do you remember saying that?
15
           Α.
                 I do.
16
                 You were not suggesting that
17
    Janssen scientists and researchers and
18
    doctors and sales reps are free to use
19
    any definition they want when they are
20
    referring to either addiction or
21
    dependence or abuse or misuse or
22
    anything?
23
                  I believe my testimony was
24
    that there was no company-wide definition
```

- of these terms that was understood by
- ² everyone who used these terms.
- ³ Q. Was there a medical
- 4 affairs-wide definition of those terms --
- ⁵ A. No.
- Q. -- or some of those terms?
- ⁷ A. No.
- 8 O. Are there -- I do see that
- ⁹ in certain pieces, for example the
- Exhibit 30 -- you don't need to really
- pull it out, I don't think. But this is
- one of the -- this is -- this is one of
- the REMS from -- it must be later if it's
- ¹⁴ a REMS, right?
- A. Yes.
- Q. Yeah. The -- there are
- definitions listed at the beginning of
- the document, correct? But that's good
- scientific practice, right, if you're
- writing, and you're going to be using
- 21 particular terms, to define those terms
- somewhere in the document?
- A. Yes.
- Q. Was it the practice in

- medical affairs to define terms that at
- least medical affairs was using in their
- 3 documentation?
- ⁴ A. That would depend upon the
- 5 context. If we were doing a clinical
- trial where we had to define a term or
- ⁷ how we would arrive at that diagnosis,
- 8 then it would be defined in the clinical
- ⁹ trial.
- In general use, we would use
- the terms that were widely identified and
- defined by well-recognized societies that
- managed -- that did pain management. The
- 14 American Academy of Pain Management has
- definition of these terms. The American
- Pain Society has a definition of these
- terms. There are DSM-IV definitions of
- these terms.
- Q. You would agree with me that
- that would be good scientific practice
- for a pharmaceutical company to use a
- common definition when -- I'm not talking
- about clinical trials where you are
- laying it out. I'm not talking about

1 analyses of prior literature by other 2 I'm talking about studies, authors. reports, writings by the medical affairs department at Janssen, it would be good 5 scientific medical practice to have a 6 common definition, correct? 7 MR. LIFLAND: Object to the 8 form of the question. 9 THE WITNESS: It would 10 depend on the context. So if we 11 were talking about adverse event 12 reports, it may simply be the way 13 it was defined by the reporter. 14 If we are talking about internal 15 documents, it would probably be 16 the understanding of these terms 17 as used by the medical societies, 18 the broadly accepted use of these 19 terms. 20 That doesn't necessarily 21 mean that an individual who used 22 the terms outside of a document 23 like a risk management document 24 would be using the terms in the

```
same manner that a group where the
```

- terminology is reviewed by a large
- number of individuals would use
- 4 it.
- 5 BY MS. CONROY:
- ⁶ Q. So if I'm reading Janssen
- ⁷ documents over a period of time, I need
- 8 to be aware that the definition of
- ⁹ addiction, dependence, abuse, misuse, may
- change with respect to the context it's
- 11 used?
- A. And who is writing the
- 13 report and the level of expertise that he
- 14 or she has.
- Q. You were shown Exhibit 34,
- which was one of your key opinion leaders
- and Dr. Passik and several Janssen
- employees that have a brief report on
- tools to assess and document pain
- outcomes in chronic pain patients
- receiving opioid therapy. Do you recall
- 22 that?
- A. You're referring to the
- PADT, yes.

- Q. I'm going to put that on
- there. PADT. This study has the PADT
- inside the study, and I know we saw a
- 4 color version of the PADT as well,
- ⁵ correct?
- ⁶ A. Yes.
- Q. But this -- this is offered
- 8 as a tool by Dr. Passik and others. But
- 9 it was -- it hadn't been tested, right?
- 10 It could prove helpful in clinical
- management?
- 12 A. It hadn't been validated.
- But we -- in the development of the tool
- we used -- I think it describes how the
- tool was developed in the paper.
- Q. Right. We had predictive
- validity through longitudinal use of the
- 18 tool. But you said that must be
- 19 confirmed.
- A. Confirmed.
- Q. So it had not yet been
- confirmed at the time this article was
- written, correct?
- A. That's correct.

```
1
                 And studies are needed to
           Ο.
2
    clarify the interval of assessment that
    optimally balances the need to minimize
    clinician burden with the need to validly
5
    assess and document outcomes that may
6
    change continually over time, correct?
7
           Α.
                 Yes.
8
                 And so while this was a tool
9
    that was offered to physicians, we have
10
    no evidence as of today that this tool --
    that anyone is using it or that it works?
11
12
                  I don't know the level to
           Α.
13
    which they are using it. Certainly it
14
    was part of the recommendations of NIDA,
15
    as we spoke about. But I don't know the
16
    numbers.
17
                 As a tool for documentation,
18
    which is to say if someone went to a
19
    physician and asked him or her, "On what
20
    basis did you choose, " they could at --
21
    at least pull this tool up, if they were
22
    using it to say, "Okay, here was my
23
    assessment of the patient at the time
```

that I saw the patient."

24

- Q. Sure. And it might be great
- ² for that. But we have no idea who is
- ³ using it and for how long they use it and
- 4 whether it actually works, even if people
- 5 are using it.
- ⁶ A. It works as a tool to
- document the decision, yes, it -- it
- 8 would be a valuable tool to document
- ⁹ their decision.
- Whether, by doing so and the
- 11 frequency with which you're doing it
- leads to a lower risk for behaviors that
- predict abuse, misuse and diversion,
- that's part of the validation. We don't
- 15 know that.
- Q. Right. And that's also true
- of addiction, correct, it's not just
- abuse, misuse and diversion, it's
- ¹⁹ addiction as well?
- A. That's correct.
- Q. And earlier you were
- discussing the -- why doing a study with
- ²³ addiction as a primary endpoint would be
- impractical. Do you recall that

```
1
    testimony?
2
           Α.
                 Yes.
3
                 And when you were discussing
    the reasons why it would be impractical,
5
    that's really the reason why it's
6
    difficult for even a treating physician
7
    to understand what's happening with a
8
    patient who has chronic pain, is being
    prescribed opioid therapy and may or may
9
10
    not be exhibiting aberrant behavior,
11
    correct?
12
                  MR. LIFLAND: Object to the
13
           form of the question.
14
                  THE WITNESS: I'm not sure
15
           of the -- that the conclusion we
16
           have about use of a clinical trial
17
           pertains to assessment of an
18
           individual patient sitting in
19
           front of a treating physician.
20
                  The individual patient
21
           sitting in front of a treating
22
           physician, that treating physician
23
           should assess that individual for
24
           behaviors that might be suggestive
```

```
1
           of the potential for addiction or
2
           actual addiction and make a
3
           decision for that patient what the
           further method of care should be.
5
                  That's different than a
6
           clinical trial. I wouldn't equate
7
           the two.
8
    BY MS. CONROY:
9
                 What I understood you to say
10
    was when a physician in a clinical trial
11
    was presented with that problem, very
12
    often they wouldn't see the patient
13
    anymore, the patient would be gone. I
14
    think you don't actually -- there would
15
    be a discontinuance of the drug or there
    wouldn't be an ability to follow up with
16
17
    that patient.
18
                  I said that that was one of
19
    the concerns we would have in such a
20
    clinical trial, that you -- that there
21
    would be a high dropout rate among
22
    patients such that you might not even be
    able to get to an endpoint of -- an
23
24
    accurate endpoint of addiction.
```

- What I didn't mention
- earlier too is the best you can do in
- ³ such a clinical trial would be to get,
- ⁴ perhaps, a rate of iatrogenic addiction.
- ⁵ You certainly wouldn't be looking at
- 6 addiction in a subject population that
- 7 was outside of the specific patient who
- gave informed consent to be in that
- ⁹ trial.
- Q. Of course, right. My point
- was that that real world situation,
- 12 either in the clinical trial or in the
- 13 real world, is what makes it difficult,
- because when patients are suspected of
- having aberrant behavior, very often the
- physician stops prescribing the opioid,
- 17 correct?
- A. Well, that's one
- 19 possibility. But another possibility
- would be, as I spoke about earlier,
- 21 closer monitoring of the patient,
- instituting other elements of monitoring,
- opioid agreements, urine monitoring, or
- referring that patient to a pain

- 1 specialist who has greater expertise in
- ² monitoring patients with higher risk of
- ³ abuse, misuse and addiction.
- Q. And I know you talked about
- 5 the label and the monitoring of
- 6 addiction.
- Do you have any evidence
- 8 that signing contracts or urine testing
- 9 or any of those things actually work to
- 10 reduce the incidence of addiction or
- abuse or misuse?
- A. I don't. And in fact, it's
- my understanding that it's unclear at
- this point whether those elements of
- intervention do so.
- Q. So while the label says
- monitor your patient, isn't it fair to
- say it's not entirely clear what the
- 19 components of monitoring a patient that
- is exhibiting some signs of aberrant
- behavior really means?
- A. The level of evidence over
- what those interventions would lead to is
- not at a high level of accuracy.

- O. You also testified that a
- ² controlled dose is a benefit of
- Duragesic. Do you recall that? You were
- 4 looking at the label at the time when you
- ⁵ were talking about.
- 6 A. I do.
- ⁷ Q. And you said it was because
- 8 there are lower high concentrations as
- ⁹ the drug is entering the bloodstream and
- you don't go as low as an orally
- administered drug as it wears off. Do
- 12 you recall that?
- 13 A. I do. That there was a more
- consistent delivery of a concentration of
- 15 fentanyl over the 72-hour period.
- Q. So in effect, lower highs
- and higher lows for a Duragesic patch?
- A. That would be one way of
- ¹⁹ putting it.
- Q. Is that -- is that actually
- in the label, that benefit?
- A. Not as a benefit. We
- present the pharmacokinetic data.
- Q. And the pharmacokinetic data

- 1 shows the lower highs and the higher
- 2 lows?
- A. That you would maintain a
- 4 consistent level of fentanyl over that
- ⁵ 72-hour period.
- 6 Q. And is that in normal human
- 7 volunteers?
- 8 A. Yes.
- ⁹ Q. And do you know for how long
- those tests were conducted?
- 11 A. I believe in the package
- insert it's over two -- two, 72-hour
- periods.
- Q. So about -- about -- a
- 15 little under three weeks?
- A. Once they achieved steady
- state, then there was -- there were two,
- 18 72-hour periods after that.
- Q. Do you know if that's ever
- been tested in chronic pain patients for
- longer than three or four weeks?
- A. I'm sorry, I don't want
- to -- if what has been tested?
- Q. The -- the serum blood

- 1 levels, whether or not the concentration
- was -- the highs were lower, and the lows
- were higher?
- ⁴ A. So the principles of
- 5 pharmacokinetics inform the -- the
- 6 clinical -- the trial that was done that
- 7 looked at the pharmacokinetics, it was
- understood based upon principles of
- 9 pharmacokinetics, that once you reach a
- steady state, that you could predict the
- 11 longer term concentrations based upon
- those steady-state concentrations of
- 13 fentanyl beyond the period of time in
- which you are measuring it.
- Q. Do you know if that
- specifically has been tested with respect
- to fentanyl or some other opioid, or is
- that just a principle of pharmacokinetics
- that, regardless of the drug, once you
- reach steady state, it would remain that
- ²¹ way?
- A. That's a general principle
- of pharmacokinetics, that once you reach
- ²⁴ a steady state, a constant dosing, at

- whatever interval, because you're --
- you're dosing at that interval to reach
- 3 the steady state. But by definition, the
- 4 steady state would indicate that the
- 5 doses after that point would give you
- 6 peak concentrations within a certain
- ⁷ range and trough low concentrations
- 8 within a certain range. That's a
- ⁹ generally known principle of
- 10 pharmacokinetics.
- Q. Do you know whether or not
- there were any specific tests of
- Duragesic over -- that -- that lasted for
- longer than the tests that are here in
- the label that went for, I'm not entirely
- sure, maybe 19 days after steady state
- was achieved?
- A. There were additional
- 19 pharmacokinetic studies, certainly the
- 20 pharmacokinetic studies that looked at
- heat. We did pharmacokinetic studies
- with the bio occlusive overlay. We did
- 23 pharmacokinetic studies that looked at
- bioequivalence when we changed

```
1
    formulations. I don't recall that any
    extended beyond the period of time that
2
    you're seeing in the label or that gave
    different information which then the FDA
5
    might have included in the label.
6
                 We already covered this one.
           0.
7
                  MS. CONROY: So I'm done.
8
                 MR. LIFLAND: I have just a
9
           couple of follow-ups.
10
                 MS. CONROY: Do you want to
11
           do it from there or do you want to
12
           come across?
                 MR. LIFLAND: I think I will
13
14
           do it from there.
15
                                     All
                  THE VIDEOGRAPHER:
16
           right. Remove your microphones.
17
           The time is 7:42 p.m. Off the
18
           record.
19
                  (Short break.)
20
                  THE VIDEOGRAPHER: The time
21
           is 7:44 p.m. Back on the record.
22
23
                    EXAMINATION
24
```

```
1
    BY MR. LIFLAND:
2
                 Dr. Moskovitz, just a couple
    of follow-up questions.
4
                 First, relating to
5
    Exhibit 41. Do you have that?
6
                 I do. It's the top
           Α.
7
    document.
8
           O. This is the document that
9
    indicates that the company was treating
10
    its assessment for going forward with the
11
    development program for the matrix
12
    patches that the FDA wanted as an
13
    internal company document. There's no
14
    suggestion in here though that the
15
    company did not send the RADARS data
16
    itself to the FDA?
17
                 MS. CONROY: Objection.
18
                  THE WITNESS: That's
19
           correct. That's correct. We sent
20
           the RADARS data as part of our
21
           obligation for the risk management
22
           program.
23
    BY MR. LIFLAND:
24
                 And in fact, it says here,
           Q.
```

- ¹ "The RADARS report we submit to the FDA,"
- indicating the data is sent, correct?
- ³ A. Yes.
- Q. Let's go to Exhibit 29.
- ⁵ A. 29. I've got it.
- Q. Can you turn to Page 39.
- A. I have it.
- 8 O. You'll see there's a
- 9 statement on Page 39, mostly down the
- third paragraph that says, "For example,
- in a retrospective review of over 12,000
- hospital patients, only four potential
- ¹³ addicts were identified."
- 14 And there are some
- ¹⁵ footnotes.
- You understand that --
- 17 at least one of those citations is a
- reference to the Porter and Jick survey?
- 19 A. It's my understanding that
- we cited it. I can't say it's 14 or 15.
- Q. We can confirm that --
- A. Actually, I have it here.
- ²³ 15 is the Porter and Jick, yes.
- Q. And in fact, the

- 1 representation of that is accurate,
- ² correct, it tells -- it cites it as a
- survey of hospital patients, correct?
- ⁴ A. Yes.
- ⁵ Q. So it tells the reader that
- it's a hospital setting, correct?
- ⁷ A. Yes.
- 8 MS. CONROY: Objection.
- 9 BY MR. LIFLAND:
- 0. It tells the reader that
- it's survey data, correct?
- A. A retrospective review would
- be survey data, yes.
- Q. And it indicates there have
- been no large prospective studies of
- iatrogenic drug addiction, correct?
- A. Yes.
- Q. So nothing is being
- inaccurately represented here, correct?
- A. Yes.
- Q. Now, in fact what's being
- represented is that we don't have much
- ²³ data, correct?
- A. Yes.

```
Q. And is that the reason why
```

- the company continues to track these
- ³ adverse events as best it can?
- A. Yes. We knew that there
- were inadequate data on the true
- incidence of any of these terms. And
- ⁷ so -- especially specifically with
- ⁸ Duragesic, because all of these data were
- 9 developed on all opioid compounds. And
- so that's why we continued to maintain a
- surveillance program for our compounds.
- Q. And in all the years, in all
- these surveys with the risk management
- plan, did you see evidence of high
- addiction problems with Duragesic as
- compared to other opioid analgesics?
- A. I'm certainly glad you
- qualified that with "as compared to other
- opioid analgesic products."
- In all streams of
- surveillance that we received, rates of
- abuse and diversion were consistently low
- risk or very low for Duragesic relative
- to other extended-release opioid

```
1
    compounds.
2
                  And non extended-release.
    Certainly hydrocodone was included in
    those surveillance studies.
5
           Q. And let me show you
6
    exhibit --
7
                  MR. LIFLAND: Did we mark --
8
           did we mark the iatrogenic
9
           addiction report that I showed
10
           him?
11
                  MS. CONROY: I thought you
12
           had.
13
                  MR. RODRIGUEZ: I thought
14
           you did.
15
                  THE WITNESS: I thought you
16
           did too.
17
                  Here we go. It's
18
           Exhibit 37.
19
                  MS. CONROY: This is part of
20
           your pile. It's in there.
21
    BY MR. LIFLAND:
22
           O. Take a look at Exhibit 37.
    This is the review of the adverse event
23
24
    reports of addiction for Duragesic,
```

```
1
    correct?
2
                  The adverse events reported
    to our safety group with the term
    "addiction," yes.
5
                 And it goes into some
6
    detail. It has exactly how they analyzed
7
    and searched and figured out which ones
8
    they could characterize as reports of
    addiction based on what they were
9
10
    attempting to look at, correct?
11
                  Yes.
           Α.
12
                  And the report is very clear
13
    that what they are looking at is not
14
    anything other than reports that are
15
    received in an adverse event database,
16
    correct?
17
           Α.
                Correct.
18
                 And in fact, in the
19
    conclusion, when you read the
20
    conclusion --
21
                  MS. CONROY: What page is
22
           that on?
23
                  MR. LIFLAND: On 16. Well,
24
```

it's shortly before the

```
1
           conclusion.
2
                  THE WITNESS: It's part of
           the discussion.
3
    BY MR. LIFLAND:
5
                  Right. It's the discussion.
           Ο.
6
    It indicates that, "The reporting rate
7
    must be considered very rare given that
8
    there are 103 cases over 1.6 billion
9
    patient days."
10
                  You'd agree with that,
11
    right?
12
           Α.
                 Yes.
13
                 And you'd agree that it
14
    would be also very rare even if you
15
    assumed that 90 percent of the cases
16
    weren't reported, correct? If it was a
    thousand over 1.6 billion patient days,
17
18
    that would be a low reporting rate?
19
                  It would still be --
           Α.
20
                  MS. CONROY: Objection.
21
                  THE WITNESS: It would still
22
           be considered a low rate.
23
                  MR. LIFLAND: Thank you.
24
                  MS. CONROY: Are you all
```

```
1
           set? I just have a quick
2
           question.
3
                  THE VIDEOGRAPHER: Off the
           record, right?
5
                 MS. CONROY: Keep it on the
6
           record.
7
                  THE VIDEOGRAPHER: No
8
           problem.
9
10
                    EXAMINATION
11
12
    BY MS. CONROY:
13
           Q. Doctor, Exhibit 29 I'm going
14
    to ask you about. 29 is --
15
                 MR. LIFLAND: I've got it.
16
           It's the --
17
                 MS. CONROY: It is the risk
18
           management report plan, June 14,
19
           2007.
20
    BY MS. CONROY:
21
           Q. You just had it a minute
22
    ago. It's thick.
23
           A. There are lots of documents.
24
    If it's this --
```

```
MR. LIFLAND: This one.
```

- THE WITNESS: Okay. Okay.
- Thank you.
- ⁴ BY MS. CONROY:
- ⁵ Q. And could you go to Page 39,
- ⁶ please.
- ⁷ A. Yes.
- ⁸ Q. And I think earlier we were
- ⁹ talking about the context in which
- certain words are used or you have to be
- 11 careful of the context of a document. Is
- 12 that true?
- A. Yes.
- Q. And if you take a look, I
- know that Mr. Lifland read to you that --
- he read the sentence, "For example, in a
- 17 retrospective review of over 12,000
- hospital patients, only four potential
- 19 addicts were identified." And that cites
- the Porter and Jick letter to the editor
- from 17 -- 27 years earlier.
- But if you look at -- above
- that, it says, "One of the main
- misconception leading to the

- ¹ undertreatment of pain by clinicians in
- the United States is exaggerated fear
- that efforts to adequately relieve pain
- 4 will result in the development of
- ⁵ addiction to the pain-relieving medicine.
- 6 Clinicians commonly overestimate the
- ⁷ frequency of addiction in hospitalized
- ⁸ patients."
- ⁹ And then it goes onto cite
- 10 Porter and Jick. And says the survey
- data suggest low rates of iatrogenic
- ¹² addiction.
- Do you see that?
- 14 A. I do.
- O. So the context of this is
- that there are misconceptions with
- 17 respect to concerns about iatrogenic
- addiction, and that it is in fact a low
- ¹⁹ rate, correct?
- MR. LIFLAND: Object to the
- form of the question.
- THE WITNESS: In the context
- of stating that there are no large
- prospective studies that would get

```
1
           to the exact rate, these are the
2
           best data that we have available.
    BY MS. CONROY:
4
                 And from that, you can -- if
5
    you're reading this, it's telling you
6
    there's a -- there's a misconception
7
    leading to the undertreatment of pain
8
    because people are more worried than they
9
    should be about iatrogenic addiction?
10
                  MR. LIFLAND: Object to the
11
           form of the question.
12
                  THE WITNESS: This is in the
13
           context of a report we're making
14
           to the Food and Drug
15
           Administration describing the --
16
           our risk management plan, but we
17
           make those statements.
18
    BY MS. CONROY:
19
                 Right. You make statements
20
    of misconception of undertreatment of
21
    pain to the FDA, and not statements about
    the lack of studies with respect to
22
23
    iatrogenic addiction?
24
                 MR. LIFLAND: Object to the
```

```
1
           form of the question.
2
                  THE WITNESS: I'm not sure
3
           of the question. We did cite the
           Porter and Jick letter.
5
    BY MS. CONROY:
6
                 With a statement about the
7
    fact that there were misconceptions about
8
    concerns about addiction.
9
           Α.
                 Yes.
10
                  It would seem to -- it would
11
    seem to be contradictory.
12
                  MR. LIFLAND: Object to the
13
           form of the question.
14
                  THE WITNESS: It was -- I
15
           don't know that I'd call it
16
           contradictory. But that there are
17
           inadequate data. But that there
18
           was the general conception at the
19
           time, certainly information that
20
           we gathered even at advisory
21
           committees with the FDA, that
22
           the -- the concern about the
23
           potential for addiction led to
24
           undertreatment of pain.
```

```
1
                  That was a widely cited
2
           concern, even by the FDA at their
3
           advisory committee meetings, there
           were some data that assessed rates
5
           of addiction, one of which was the
6
           Porter & Jick letter.
7
    BY MS. CONROY:
8
                 And so those concerns were
9
    stated by Janssen here without the
10
    benefit of any large scale addiction
11
    study?
12
           Α.
                 As we stated.
13
                  MS. CONROY: That's all I
14
           have.
15
                  MR. LIFLAND: Just one quick
16
           question. I'll do it from here.
17
                  THE VIDEOGRAPHER: Your
18
           microphone.
19
20
                    EXAMINATION
21
22
    BY MR. LIFLAND:
23
           Q. Can you read the sentence
24
    that begins "Clinicians commonly
```

- 1 overestimate"?
- A. "Clinicians commonly
- overestimate the frequency of addiction
- 4 in hospitalized patients."
- ⁵ Q. What patients is that
- 6 sentence talking about?
- A. I'd have to go to the
- 8 reference. Well, that -- it's talking
- 9 about hospitalized patients by virtue of
- the sentence.
- Q. And what -- that's what it
- says. And what patients did the Porter &
- ¹³ Jick survey look at?
- A. Hospitalized patients.
- Q. So in fact, the sentence is
- responding to a sentence about
- overestimation of addiction in
- hospitalized patients, correct?
- A. Correct. In that respect
- we're looking at a similar patient
- population.
- Q. And then can you read the
- final sentence of that paragraph?
- A. "It should be noted that

- there have been no large prospective
- 2 studies of iatrogenic drug addiction, but
- 3 these survey data suggest low rates of
- 4 iatrogenic addiction."
- ⁵ Q. So the absence of large
- 6 scale prospective studies is expressly
- ⁷ noted, right?
- 8 A. Yes.
- 9 MR. LIFLAND: Thank you.
- 10 _ _ _
- 11 EXAMINATION
- 12 _ _ _
- 13 BY MS. CONROY:
- Q. Just take a look. Prior to
- the sentence about the "clinicians"
- commonly overestimate the frequency of
- ¹⁷ addiction in hospitalized patients,"
- there's no definer of the types of
- 19 clinicians in the sentence above. One of
- the main misconceptions leading to
- undertreatment of pain by clinicians in
- the United States is exaggerated fears
- that efforts to adequately relieve pain
- will result in the development of

```
addiction to pain relieving medicine.
1
2
                  That has no qualifier with
    respect to hospitals or hospital
    patients, correct?
5
           Α.
                  Correct.
6
                  MS. CONROY: No further
7
           questions.
8
                  THE VIDEOGRAPHER: This
9
           marks the end of today's
10
           deposition. The time is 8:01 p.m.
11
           We are off the record.
12
                  (Brief pause.)
13
14
                  MS. CONROY: As a
15
           housekeeping detail to the
16
           30(b)(6) deposition, I know that I
17
           marked as exhibits all of the
18
           index sheets to the documents that
19
           were provided to us by defense
20
           counsel, and we did not mark
21
           separately all of the documents,
22
           we just marked the index sheets.
23
           And so at this time, we will
           mark -- we won't do it here at the
24
```

1	deposition, but we will consider
2	that all of the documents
3	referenced on the index sheets are
4	part of the exhibit, and we can
5	label them, the exhibit number A,
6	if you want or we can
7	MR. LIFLAND: Should we do
8	it that way? I'm fine with that.
9	And for the record, I just
10	have an objection here. There
11	were three exhibits, I guess one
12	was simply his
13	MS. CONROY: That one is
14	marked as an exhibit.
15	MR. LIFLAND: I'd like to
16	have them all here. There was
17	another one yesterday, right?
18	MS. CONROY: I think he has
19	that one. Here is the other one.
20	MR. LIFLAND: There was
21	another one yesterday.
22	MS. CONROY: There was. Let
23	me I'll tell you what, I will
24	find that and I will mark it as

1	Exhibit 43 and we'll put it in the
2	record. Okay?
3	(Document marked for
4	identification as Exhibit
5	Janssen-Moskovitz-42.)
6	(Document marked for
7	identification as Exhibit
8	Janssen-Moskovitz-43.)
9	MR. LIFLAND: Just for the
10	record, these are pictures of the
11	witness in which counsel has
12	written excerpts from documents.
13	I believe these are not proper
14	argument. They shouldn't have
15	been displayed while the testimony
16	was being taken, and I would
17	object to them being displayed
18	with the testimony, if the
19	testimony is played. So I just
20	want to make that objection for
21	the record.
22	I appreciate having a copy
23	of these, you know, for our
24	purposes.

```
1
                  MS. CONROY: Sure.
                                       And we
2
           consider these demonstratives that
3
           would takes place at this
           deposition. If used as trial they
5
           would be perfectly possible to
6
           create during trial and so we may
7
           have -- we may have additional
8
           justification if it comes -- if it
9
           ever comes to that. But that's
10
           our position right now.
11
                  MR. LIFLAND: Okay.
12
                  (Excused.)
13
                  (Deposition concluded at
14
           approximately 8:05 p.m.)
15
16
17
18
19
20
21
22
23
24
```

1 2 CERTIFICATE 4 5 I HEREBY CERTIFY that the witness was duly sworn by me and that the 6 deposition is a true record of the testimony given by the witness. 7 It was requested before 8 completion of the deposition that the witness, BRUCE L. MOSKOVITZ, M.D., have 9 the opportunity to read and sign the deposition transcript. 10 11 12 MICHELLE L. GRAY, 13 A Registered Professional Reporter, Certified Shorthand 14 Reporter, Certified Realtime Reporter and Notary Public 15 Dated: November 15, 2018 16 17 18 (The foregoing certification 19 of this transcript does not apply to any reproduction of the same by any means, 20 21 unless under the direct control and/or supervision of the certifying reporter.) 22 23 2.4

1 INSTRUCTIONS TO WITNESS 2 3 Please read your deposition over carefully and make any necessary corrections. You should state the reason 5 6 in the appropriate space on the errata 7 sheet for any corrections that are made. 8 After doing so, please sign 9 the errata sheet and date it. 10 You are signing same subject 11 to the changes you have noted on the 12 errata sheet, which will be attached to 13 your deposition. 14 It is imperative that you 15 return the original errata sheet to the 16 deposing attorney within thirty (30) days 17 of receipt of the deposition transcript 18 by you. If you fail to do so, the 19 deposition transcript may be deemed to be 20 accurate and may be used in court. 21 22 23 24

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1		
		ERRATA
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3		
4	PAGE LINE	CHANGE
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6	REASON:	
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24	REASON:	

1	
2	ACKNOWLEDGMENT OF DEPONENT
3	
4	I,, do
5	hereby certify that I have read the
6	foregoing pages, 326 - 769, and that the
7	same is a correct transcription of the
8	answers given by me to the questions
9	therein propounded, except for the
10	corrections or changes in form or
11	substance, if any, noted in the attached
12	Errata Sheet.
13	
14	
15	
16	BRUCE L. MOSKOVITZ, M.D. DATE
17	
18	
19	Subscribed and sworn
	to before me this
20	, day of, 20
21	My commission expires:
22	
23	Notary Public
24	

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1			LAWYER'S NOTES
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